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Commonwealth of Massachusetts



Massachusetts  
Service Delivery Area  
Job Market Reports:  
**The Northern Middlesex SDA**

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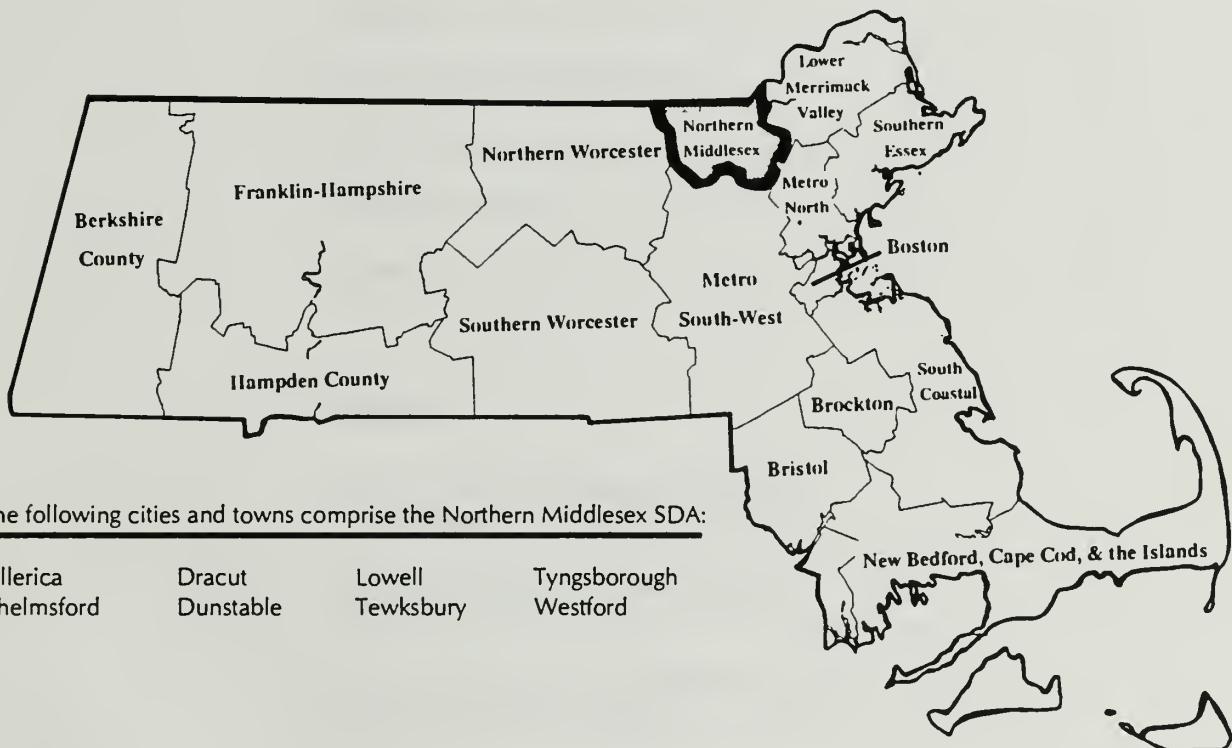
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# Massachusetts Service Delivery Area Job Market Reports: **The Northern Middlesex SDA**



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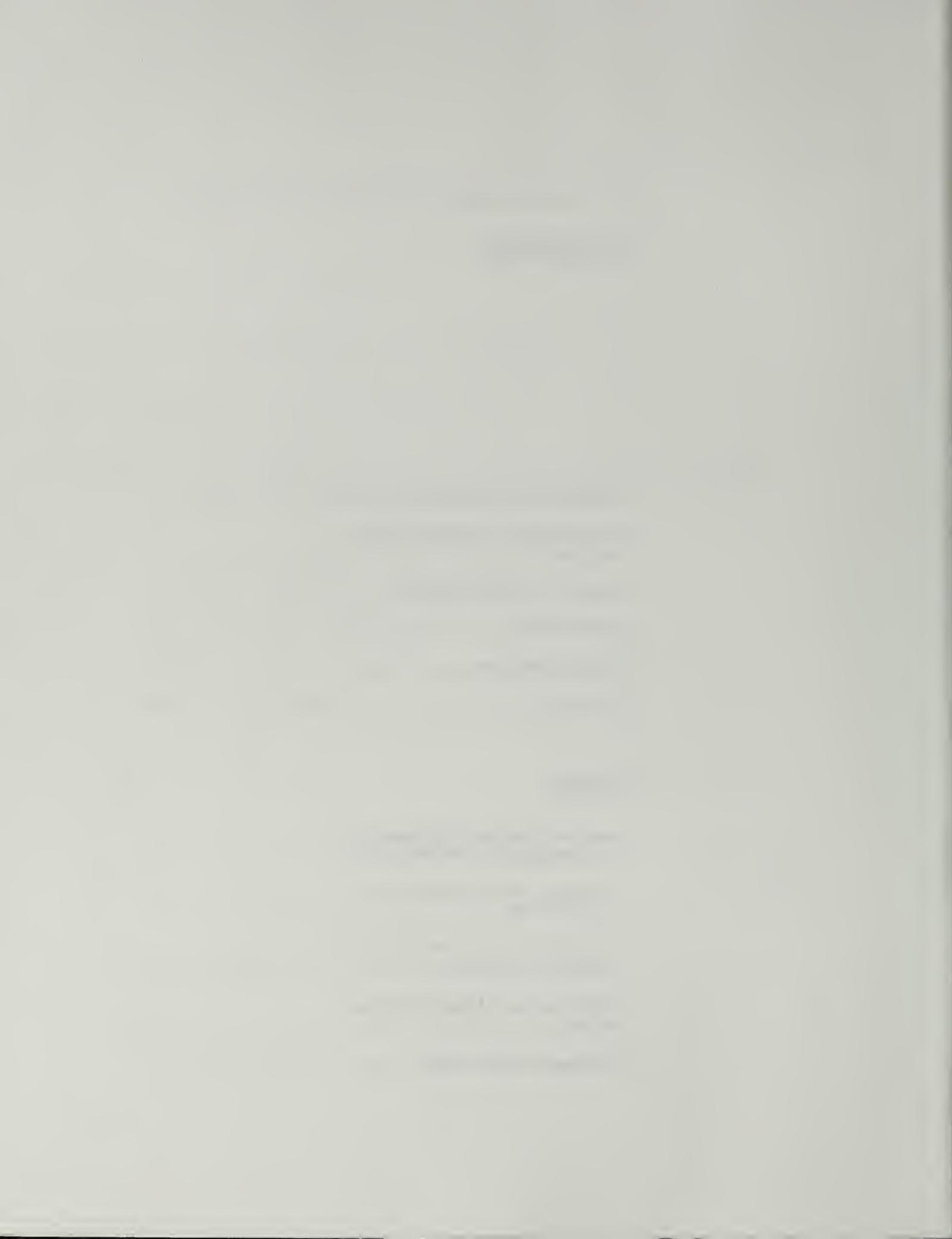
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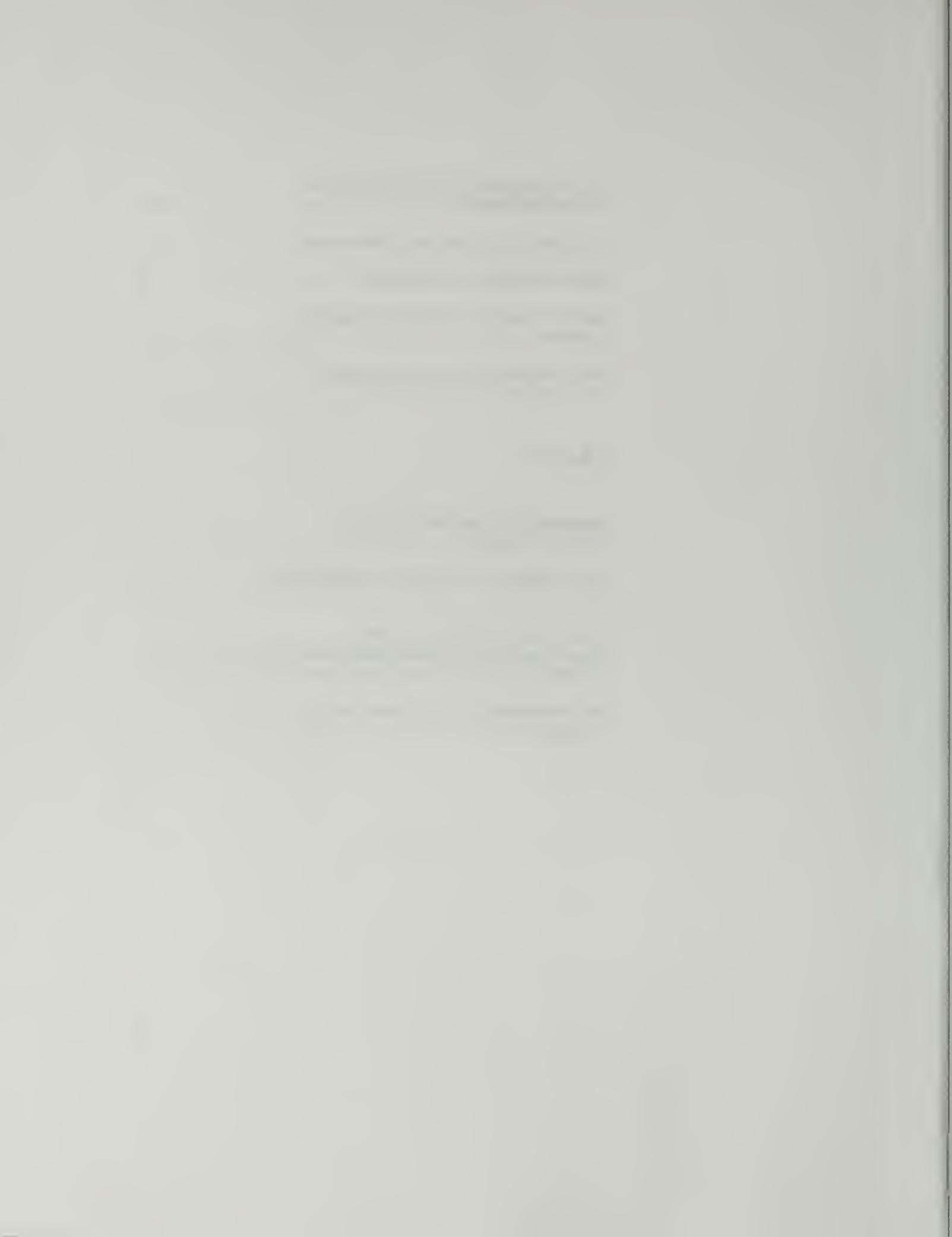
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# Introduction: the SDA Job Market Reports

This report analyzes the economies and job markets of the Commonwealth's 15 Service Delivery Areas between 1984 and 1990. It examines the kind of jobs that local areas generated or lost over the period, the industries that make up the area, the average earnings of workers, the level of unemployment and education in the workforce, and the distribution of jobs by occupation.

This report provides an overview of the emerging economic forces changing the job market. Data on local area population, labor force, employment, unemployment, job growth, wages, and income are included as well as information on how to interpret and use the data.

This report also analyzes the occupational staffing patterns of local economies, publishing for the first time, a detailed occupational employment data base by SDA. Labor leaders, educators, human resource specialists, and Regional Employment Boards can use this data to:

*study the geographical movement of jobs and workers within the state to relate the location and number of workers by occupation to demand.*

*assess and analyze the occupational composition of jobs and skill requirements within areas.*

There are 15 Service Delivery Areas in Massachusetts, each profiled in a separate report. Each report, however, contains an overview of the economic growth in all service delivery areas. Refer to the appendix for a listing of the cities and towns comprising a service delivery area .

Service Delivery Areas were established under the provisions of the 1983 federal Job Training Partnership Act, to tailor the Commonwealth's employment and training programs to the needs of citizens in local areas. Some service delivery areas consist of a single county; others are comprised of two or more counties. The Boston Service Delivery Area is the only single-city SDA, while others cross county lines.

*plan and design education and training programs*

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# How to Interpret the Job Market and Use the Reports

This report is divided into two sections. Section I summarizes the changes in population, employment and unemployment in all 15 Service Delivery Areas, highlighting the geographic concentration of jobs by industry and occupation. Section II profiles the respective service delivery area and presents a detailed series of tables on the area's occupations and industries.

Table A in Section II lists the number of jobs by occupation and provides the percent distribution of the jobs within the area, highlighting the diverse occupational structure of the SDA. Occupations are grouped by skill level to allow comparisons of similar or related occupations.

Table B in Section II lists the industries where jobs are found in major occupations. Finally, Table C presents the number and type of jobs found in major industries in the local economy. Industries are defined in terms of the Standard Industrial Classification (SIC) system. A detailed description of the SIC, including industry definitions is contained in

the *Standard Industrial Classification Manual, 1972* and the *1977 Supplement*.

## How to Use the Data

The following sections briefly outline how to interpret and use the data.

## Population

Population trends provide a measure of an area's economic stability. If an area has high unemployment and is losing its economic base, a decline in employment usually results in an eventual decrease in population and income. The opposite is generally true in areas with fast growing economies. The more jobs an area generates, the more people move into the area to seek employment. Population growth, however, can occur independently of employment in certain areas, particularly if the region is a retirement community.

Population changes from natural increases, the difference in the number of births and deaths, and migration, are identified in Table I.

The 1980 and 1988 population estimates are from the Bureau of the Census. Natural increases are derived from the Massachusetts Department of Public Health's estimates of births and deaths. Net migration estimates are derived by subtracting the total net change in population from the natural increase.

## Labor Force

The size and characteristics of the labor force determine the number and type of people competing for jobs. Changes in educational requirements, the size of the labor force, and the age structure affect employment opportunities.

Table I lists the total number of persons in the labor force, i.e., those that are either employed or unemployed. This count is residentially-based and includes self-employed and unpaid family workers in addition to wage and salary workers.

## Growth vs. Number of Jobs

When assessing an area's economic viability, it is important to distinguish between an area's rate of job creation and the number of jobs generated. Even though an area has a fast rate of job growth it may generate fewer numbers of jobs than slow growing areas. For example, the Brockton Service Delivery Area had the second fastest job growth rate, but generated only 4.7 percent of the Commonwealth's jobs. Many of these jobs were low paying and decreased the area's percentage share of total state wages. By comparison, the city of Boston was the slowest growing area, with job growth averaging 0.7 percent per year. Nevertheless, because of its size it generated 7.6 percent of the state's jobs.

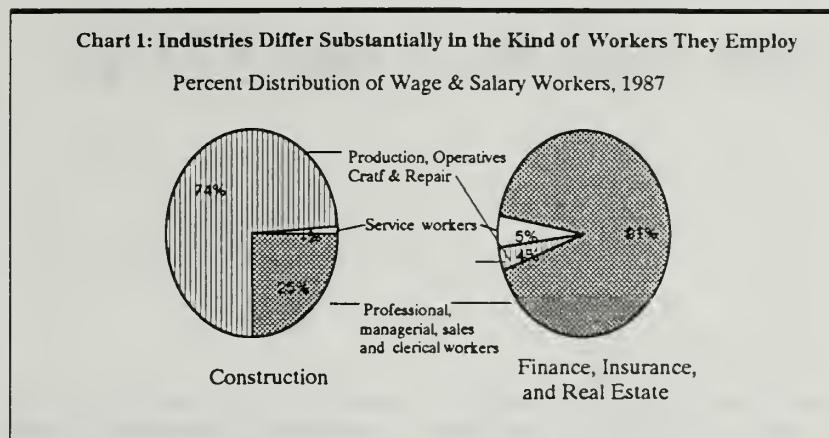
The industry employment data shown in Table 2 is compiled through the Department of Employment and

Training's Employment and Wage program. Employment in this context is the count of all persons on the payroll of establishments subject to the Massachusetts Employment Security Law. Employment data were not adjusted to account for such factors as noneconomic coding changes, Standard Industrial Classification code changes, or changes in the multi-location employer reporting. However, since the data are confined to SDAs and large industries and sectors, comparisons of broad economic trends can be made.

### Distribution of Jobs by Industry and Occupation

The number of jobs in an SDA depends in large part on the demand for goods and services produced by the area's industries. The growth or decline of an industry, however, has varying effects on individual occupations because industries employ different types of workers. Growth of manufacturing industries, for example, would tend to increase the employment of engineers, technicians and machine operators. In contrast, growth in the finance, insurance, and real estate industries would likely increase the employment of economists, financial analysts and sales and clerical workers.

The distribution of jobs by occupation in Tables 3, A, B and C is based on 1987 data collected by the Occupational Employment Statistics (OES) program, a Federal-State cooperative program. The OES data show how different industries, and different firms in the same industry employ workers in various skills. Over time the data can provide insights into how jobs are affected by technical advances, foreign competition, and shifts in the demand for goods and services.



Occupational staffing patterns are based on 1987 data. Over the short-term, occupational staffing patterns are not significantly affected by changes in the job market. Over the long-term, however, staffing patterns are affected by changes in technology and the number of newworkers.

Occupational staffing pattern data were obtained for all industries, except for workers employed in agriculture, private households and the federal government. The industries covered in these tables thus account for 97 percent of all wage and salary workers.

### Average Annual Wages

Average wage data give a comparative measure of how well jobs pay in specific areas and industries. The data, compiled through the Employment and Wage program, approximates an average annual wage by area and industry. It is computed by dividing total wages by the total number of workers employed.

Annual pay data only approximate annual earnings because an individual may not be employed by the same employer all year, or may work for more than one employer. Annual pay is also affected by the ratio of full-time to part-time workers as well as the number of individuals in

high paying and low paying occupations. Industries characterized by high numbers of part-time workers, such as retail trade, show wage levels appreciably below other industries. The opposite effect characterizes industries with low percentages of part-time workers, or industries which typically have heavy overtime work. Average annual wage data may also be influenced by work stoppages, bonus and retroactive pay, and seasonal factors.

Average wages are computed by place of work. Therefore, the earnings of commuters who reside in one area and work in another, are counted in the area of employment.

### Per Capita Income

Per capita income data give a comparative measure of the income of people living in the area versus wage data which reflect earnings of workers who are employed in the area but do not live there. It is computed by dividing total personal income, the sum of earned income from all sources, by the population. Total personal income includes wages and salaries, interest, dividends, and rents, social security etc. Data on per capita income is provided for counties only. It is included to give a more comprehensive picture of an area's economic well-being.

# Overview: Job Trends in the SDAs

The Massachusetts economy performed well between 1984 and 1988. Job growth averaged 2.4 percent per year and average annual wages rose 31.1 percent to \$24,150. (In terms of 1982-84 constant dollars wages rose 15.2 percent.) Unemployment stood at 3.3 percent, a level so low that some economists believed Massachusetts had reached full employment. In 1989 Massachusetts employment growth leveled off. Unemployment inched up to 4.0 percent, but it still ranked Massachu-

sets with one of the lowest jobless rates of the 11 large states. In 1990, however, the industries that generated the bulk of the jobs--construction, services, retail trade, finance, insurance and real estate--declined. Unemployment was up 50 percent from 1989, averaging 189,000 workers or 6.0 percent. Massachusetts' unemployment rate is now higher than the nation's, averaging 9.2 percent (287,000 unemployed workers) during first quarter 1991.

Much of the employment in Massachusetts is concentrated in relatively few metropolitan areas. During the eighties, however, the state's job growth was diversified, as the city of Boston recorded the slowest growth rate of the 15 SDA's. But what areas generated the most jobs between 1984 and 1989? What areas had fast growing economies, low levels of unemployment, and high wages? What areas lost the most manufacturing jobs during the period? Which recorded the highest rates of unemployment in 1990? The following tables show the trends that highlight the answers to these questions.

## Population Growth

Table I identifies the SDAs that increased or decreased in population over the decade. It highlights the factors underlying population changes--the natural increase, or the net difference between the number of births and deaths that occurred

**Table 1: Changes in Population, Employment, and Unemployment by Service Delivery Area**  
(Data based on residential counts)

	Berkshire County	Franklin Hampshire	Hampden County	Northern Worcester	Southern Worcester	Northern Middlesex	Lower Merrimack	Southern Essex
1980 Population <sup>(1)</sup>	145,110	216,696	443,018	208,324	454,116	226,991	260,893	372,795
1988 Population <sup>(1)</sup>	138,720	224,420	449,950	225,650	471,300	244,320	279,100	375,180
Natural Increase <sup>(2)</sup>	2,014	6,631	17,123	13,861	18,521	16,186	14,825	11,202
Net Migration <sup>(3)</sup>	(8,404)	1,093	(10,191)	3,465	(1,337)	1,143	3,382	(8,817)
Total Net Change	(6,690)	7,724	6,932	17,326	17,183	17,329	18,207	2,385
<b>1988</b>								
Civilian Workforce	72,490	119,780	216,530	108,550	245,820	142,600	137,570	216,270
Employed	69,330	116,120	209,170	104,800	237,880	137,780	132,040	208,960
Unemployed	3,170	3,670	7,370	3,750	7,940	4,820	5,540	7,310
Unemployment Rate	4.4	3.1	3.4	3.5	3.2	3.4	4.0	3.4
<b>1989</b>								
Civilian Workforce	73,250	121,250	217,710	108,280	247,670	143,600	138,880	220,170
Employed	70,040	116,730	208,650	103,270	237,390	137,170	131,620	211,910
Unemployed	3,210	4,520	9,070	5,020	10,280	6,430	7,260	8,260
Unemployment Rate	4.4	3.7	4.2	4.6	4.2	4.5	5.2	3.8
<b>1990</b>								
Civilian Workforce	74,040	123,530	218,520	107,020	245,550	139,780	136,640	220,380
Employed	69,450	116,940	205,410	99,090	229,430	130,300	126,380	208,360
Unemployed	4,590	6,590	13,120	7,940	16,120	9,480	10,250	12,020
Unemployment Rate	6.2	5.3	6.0	7.4	6.6	6.8	7.5	5.5

(1) Estimates from the Bureau of the Census

(2) Derived from Mass. Dept. of Public Health's estimates of births & deaths

(3) Derived by subtracting total net change from natural increase

between 1980 and 1988; and the net migration, the number of residents that moved in or out of the area.

### Statewide Population Growth

Most of the population growth in Massachusetts from 1980 to 1988 has been entirely driven by natural increases as opposed to increases in the number of people moving into the state. From 1970 to 1980 Massachusetts' population expanded less than one percent; from 1980 to 1989, it grew 3 percent, slightly faster than the last 10 years. This growth, however, is still well below the 8.7 percent national average. Several factors explain Massachusetts' slow population growth.

While births have declined throughout the nation, the decline is more pronounced in Massachusetts. From 1960 to 1985, live births in Massachusetts declined 27 percent while nationally, live births declined 12 percent.

### Massachusetts Service Delivery Areas



Migration out of Massachusetts has been substantial. From 1970 to 1980, 263,000 people left the state. Although the economy improved in the 1980s, Massachusetts still had a net out-migration of 66,800 people between 1980 and 1988.

### Population Growth by SDA

Population changes among the SDAs varied. Population increased in 13 SDAs and declined in two. All SDAs had natural population increases, but only 5 SDAs—New Bedford, Cape Cod and the Islands, Northern Worcester,

Metro North	City of Boston	Metro South/West	South Coastal	Brockton	Bristol	New Bedford Cape & Islands	State of Massachusetts
725,993 705,680 15,891 (36,204) (20,313)	562,994 577,830 26,362 (11,526) 14,836	797,325 808,700 28,788 (17,413) 11,375	453,042 467,410 15,854 (1,486) 14,368	212,705 216,640 13,766 (9,831) 3,935	304,053 311,600 13,217 (5,670) 7,547	353,041 393,200 5,213 34,946 40,159	5,737,096 5,889,700 219,454 (66,794) 152,603
396,940 385,960 10,980 2.8	302,660 292,340 10,330 3.4	464,570 454,110 10,470 2.3	248,250 240,640 7,610 3.1	115,820 111,570 4,250 3.7	159,210 152,370 6,830 4.3	207,470 198,270 9,200 4.4	3,155,000 3,052,000 103,000 3.3
399,080 385,830 13,250 3.3	304,160 292,240 11,920 3.9	466,910 454,010 12,900 2.8	250,080 240,570 9,500 3.8	117,250 111,810 5,440 4.6	162,310 153,590 8,720 5.4	209,190 198,130 11,070 5.3	3,180,000 3,053,000 127,000 4.0
397,070 377,300 19,780 5.0	302,530 285,790 16,740 5.5	462,940 443,990 18,960 4.1	250,000 235,230 14,780 5.9	116,820 108,550 8,270 7.1	162,050 148,350 13,700 8.5	209,250 192,340 16,900 8.1	3,166,000 2,977,000 189,000 6.0

**Table 2: Job Growth in Service Delivery Areas by Sector, 1984-1989** (*Data based on Number of Jobs in Area*)

	Berkshire County	Franklin Hampshire	Hampden County	Northern Worcester	Southern Worcester	Northern Middlesex	Lower Merrimack	Southern Essex
<b>Avg Annual Percent Change</b>								
Total, all Industries .....	1.7	2.8	1.9	1.7	3.0	1.8	1.8	1.4
Construction .....	13.0	10.8	8.5	7.8	7.1	5.1	5.3	5.7
Manufacturing .....	-3.1	-2.3	-2.8	-3.3	-1.0	-2.6	-2.1	-3.6
Communications/Utilities .....	3.9	2.6	4.2	2.7	3.8	8.2	2.2	4.7
Wholesale Trade .....	-4.3	8.8	1.7	9.6	5.5	8.8	2.7	3.8
Retail Trade .....	2.7	4.5	3.0	3.3	3.6	2.1	2.7	1.1
Banks, Ins. & Real Estate .....	0.3	8.7	3.2	5.1	6.0	5.6	3.5	5.2
Services .....	4.5	4.5	4.0	5.6	5.3	6.9	5.6	4.8
Government .....	1.8	1.0	2.2	2.2	2.2	2.0	3.5	2.2
<b>Net Change, 1984-1989</b>								
Total, all Industries .....	5,000	10,380	18,070	6,510	30,680	8,420	9,980	11,100
Construction .....	1,770	1,420	2,530	1,030	2,430	840	940	1,520
Manufacturing .....	(2,480)	(1,670)	(6,550)	(4,130)	(2,650)	(4,850)	(4,750)	(6,700)
Communications/Utilities .....	320	300	1,640	330	1,630	1,280	420	1,010
Wholesale Trade .....	(450)	850	740	1,190	3,330	1,450	710	1,370
Retail Trade .....	1,690	3,300	5,710	2,190	6,880	1,770	2,330	2,170
Banks, Ins. & Real Estate .....	20	990	2,060	560	3,470	770	790	1,620
Services .....	3,550	4,150	8,590	3,810	12,560	5,750	6,750	8,150
Government .....	530	820	3,100	1,300	2,520	1,120	2,470	2,050
<b>Percent Change, 1984-1989</b>								
Total, all Industries .....	8.6	14.6	9.7	9.0	16.0	9.0	8.8	7.5
Construction .....	81.6	62.7	46.9	37.0	34.8	24.4	25.9	30.2
Manufacturing .....	-14.7	-11.0	-13.3	-15.4	-5.0	-12.4	-10.6	-17.0
Communications/Utilities .....	20.4	13.8	22.6	13.2	20.2	40.5	10.0	25.5
Wholesale Trade .....	-22.4	51.0	7.7	56.7	30.2	50.8	14.1	20.7
Retail Trade .....	13.8	24.3	16.1	17.6	19.4	10.9	14.1	5.7
Banks, Ins. & Real Estate .....	1.0	47.8	16.9	27.3	32.7	28.0	18.5	28.7
Services .....	24.2	24.3	21.6	30.8	29.3	39.1	31.1	26.3
Government .....	9.4	5.0	11.7	11.6	11.2	10.5	18.6	11.6

Lower Merrimack Valley, Northern Middlesex, and Franklin-Hampshire--had net in-migration.

Table 1 shows that New Bedford, Cape Cod and the Islands gained the most population over the decade, while Metro North and Berkshire County lost population. There are a number of reasons for population changes. One is that people move out of areas with weak job markets to where the jobs are. In Berkshire County and Metro North, job growth underperformed that of the state. But in New Bedford, Cape Cod and the Islands population growth primarily resulted from 34,946 people moving into the area. The area's economic boom, quality of life, and lower cost of living attracted them

to seek employment or retire. The characteristics of this SDA therefore make economic analysis of the employment growth to population growth relationship more difficult.

#### A Note on Population Counts

At the time of this writing, 1990 Census data were not available. Some preliminary figures have since become available, showing a faster rate of growth between 1980 and 1990. Differences in the statewide rate of growth from 1980-1988 and 1980-1990, appear to be less than two tenths of a percentage point on an annualized basis. On an SDA basis, differences in the rate of change between the two figures appear to be most significant for only Bristol, Franklin-Hampshire, Metro North,

and Southern Worcester. However, population counts for 1990 are preliminary and are subject to possible correction for undercounts or overcounts. The U.S. Department of Commerce is considering whether to correct these counts and will publish corrected ones if any, no later than July 15, 1991.

#### Labor Force and Employment

Table 1 also identifies the areas with the largest labor force and the most employment in 1988, 1989, and 1990. Some significant differences exist in the concept of employment. Because interurban commuting outside of many service delivery areas is common, residential and business growth often diverge. The data in table 1 are

Metro North	City of Boston	Metro South-West	South Coastal	Brockton	Bristol	New Bedford Cape & Islands	State of Massachusetts
1.3	0.7	2.0	3.3	3.0	2.1	2.3	1.8
5.7	3.1	5.2	8.1	6.6	11.8	6.4	6.1
-3.6	-7.0	-2.1	-5.4	-3.6	-3.1	-4.8	-3.6
4.7	-2.3	1.5	5.8	3.0	2.4	2.0	1.0
3.9	-4.7	6.4	4.8	10.2	8.5	7.0	3.9
1.1	-1.5	1.8	2.2	4.8	5.0	3.0	2.1
5.2	1.4	4.4	10.9	6.0	4.6	4.4	4.1
4.8	3.0	5.0	6.7	5.1	4.7	5.7	4.4
1.0	2.7	1.0	1.0	0.8	3.8	2.5	2.0
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22,560	19,680	46,060	27,780	12,180	13,230	17,200	258,190
3,110	1,670	3,980	3,630	1,150	2,280	1,990	30,430
(26,530)	(14,220)	(14,230)	(6,860)	(2,610)	(7,060)	(6,450)	(112,440)
(1,120)	(4,140)	1,030	1,760	670	420	660	5,680
8,920	(5,630)	10,770	2,120	2,390	2,600	1,540	31,580
4,980	(4,610)	7,030	4,950	4,660	6,270	5,970	55,930
6,950	5,110	4,680	7,960	960	1,110	1,310	38,730
24,380	29,040	29,960	12,490	4,190	4,880	9,310	167,370
1,540	12,370	2,460	900	490	2,580	2,410	36,540
<hr/>							
6.5	3.7	10.2	17.7	16.1	11.1	12.1	9.2
23.8	15.6	25.7	43.7	35.2	67.0	31.6	31.6
-32.6)	30.4	-10.3)	-24.6)	-17.0	-14.8)	-21.8)	-16.7)
8.4	-11.1	7.1	31.5	14.8	12.2	10.0	4.8
40.9	-21.8	35.7	26.4	60.6	48.2	39.8	21.0
8.2	-7.3	9.1	11.5	26.5	27.1	15.8	11.1
57.7	6.9	23.8	65.8	33.7	25.0	23.2	22.1
21.3	15.6	27.7	38.2	28.3	26.0	32.0	23.7
5.3	14.2	5.2	4.9	3.8	20.2	12.9	10.4

residentially based, so heavily populated areas usually have the largest labor force and employment. The data in tables 2, 3, and 4 are employer based. These tables represent employment changes in business establishments within an area.

Massachusetts' civilian labor force grew by 10.9 percent or by 313,000 between 1980 and 1989. Women accounted for 80.2 percent of the increase. Hurt by slow population growth, Massachusetts' labor force growth lagged behind the 15.8 percent national average growth rate recorded for the same period. In 1990, however, the Massachusetts labor force declined marginally to 3,166,000, a loss of 14,000 workers from 1989.

Over half of Massachusetts' labor force resided in 5 SDAs and more than a third lived in just three of these SDAs—Metro South-West, Metro North, and the City of Boston.

Metro South-West, the area bounded by Route 128 and Interstate 495, has the largest and most educated labor force in the state. In 1990 it accounted for approximately 15 percent of the state's labor force and employment. Metro North and the City of Boston, the second and third largest SDAs in terms of population and employment, accounted for 12.6 and 9.6 percent of Massachusetts employment, respectively.

South Coastal and Southern Worcester, the fourth and fifth largest SDAs,

each accounted for about 8 percent of Massachusetts' employment. Berkshire County, the state's smallest SDA in terms of population, labor force, and employment had only 2.3 percent of the state's employment.

### Unemployment

Table I also shows the distribution of unemployment and the jobless rates among the 15 SDAs. Bristol, New Bedford, Cape Cod and the Islands, and Lower Merrimack Valley, areas with nondiversified economies, had among the highest rates of unemployment in the state in 1988, 1989, and 1990. In 1990, Bristol's and New Bedford, Cape Cod and the Island's jobless rate topped 8.0 percent. Despite problems in its high technology industries, Metro South-

**Table 3: Distribution of Jobs in Service Delivery Areas by Industry & Occupation**

	Berkshire County	Franklin Hampshire	Hampden County	Northern Worcester	Southern Worcester	Northern Middlesex	Lower Merrimack	Southern Essex
<b>Industrial Distribution</b>								
Total Jobs .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Construction .....	5.9	4.5	3.9	4.8	4.2	4.2	3.7	4.1
Manufacturing .....	22.9	16.6	20.8	29.0	22.8	33.8	32.4	20.4
Communications/Utilities .....	3.0	3.0	4.4	3.5	4.4	4.4	3.7	3.1
Wholesale Trade .....	2.5	3.1	5.0	4.2	6.5	4.2	4.7	5.0
Retail Trade .....	22.2	20.7	20.2	18.5	19.0	17.7	15.3	25.2
Banks, Ins. & Real Estate .....	4.0	3.8	7.0	3.3	6.3	3.4	4.1	4.5
Services .....	28.9	26.0	23.6	20.4	24.9	20.1	23.0	24.5
Government .....	9.9	21.2	14.5	15.9	11.3	11.5	12.7	12.3
<b>Occupational Distribution</b>								
Total, all Occupations .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Managerial & Executive .....	8.8	8.7	7.7	8.6	8.6	9.0	8.0	8.6
Prof. & Technical .....	19.9	21.8	16.7	14.8	18.9	23.3	20.7	16.6
Marketing & Sales .....	12.0	10.6	13.7	11.5	12.6	13.1	9.8	14.0
Clerical & Administrative .....	14.8	15.2	17.3	15.3	18.0	16.8	16.6	16.6
Service .....	16.9	17.9	15.6	13.3	15.0	12.4	13.9	17.5
Prod, Const Wkrs/Operators .....	27.7	25.8	29.0	36.5	26.9	25.4	30.9	26.8

West continues to have the lowest unemployment rate in Massachusetts, helped along by a low population growth rate, about half that of the state.

### Job Growth

Table 2 details the economic growth within each SDA over the 1984-1989 period. It identifies the average yearly change in industry employment levels among the SDAs, the number of jobs generated or lost by each industry over the 5 year period, and the percent change in industry employment levels between 1984 and 1989.

It is important to note that annual 1990 SDA job data are not available at the time of this writing. However, statewide job losses for 1990 totalled 125,700, the highest ever recorded. This downward trend is expected to continue well into 1991.

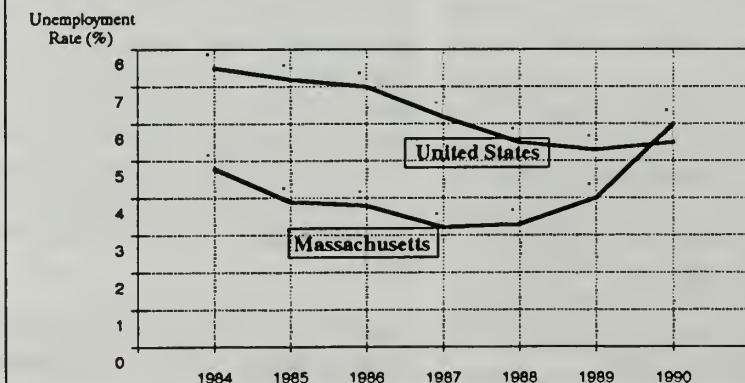
Metro South-West generated over 46,000 jobs, the most of any SDA between 1984 and 1989. South-

ern Worcester generated 30,680 jobs, the second largest number. This is significant because Southern Worcester is only one-half the size of Metro South-West, in terms of total number of jobs. South Coastal, benefiting from the expansion of office employment and its proximity to Boston, generated 22,560 jobs, the third largest number of jobs and the fastest rate of growth at 17.7 percent. In total, these three SDAs accounted for over 38 percent of the

Commonwealth's jobs between 1984 and 1989. Boston, the state's capital and largest SDA, generated 19,675 jobs, less than half the number Metro South-West created. Job growth averaged 0.7 percent per year in Boston, the lowest of Massachusetts' SDAs.

Service industries generated the bulk of the SDAs' jobs over the period. Only in Brockton and Bristol, areas

**Chart 2: Unemployment rates decreased between 1984 and 1987 in Massachusetts , while they continued to fall in the US until 1989.**



Metro North	City of Boston	Metro South-West	South Coastal	Brockton	Bristol	New Bedford Cape & Islands	State of Massachusetts
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
4.4	2.2	3.9	6.4	5.0	4.3	5.2	4.2
14.9	5.9	24.7	11.3	14.4	30.6	14.6	18.3
3.3	6.0	3.1	4.0	5.9	2.9	4.6	4.1
8.3	3.7	8.2	5.5	7.2	6.0	3.4	6.0
17.8	10.7	16.8	26.0	25.3	22.1	27.6	18.4
5.1	14.4	4.9	10.8	4.3	4.2	4.4	7.0
37.5	39.0	27.7	24.4	21.6	17.8	24.2	28.6
8.2	18.0	9.9	10.3	15.4	11.5	13.3	12.8
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
9.4	9.6	9.2	9.0	7.9	7.5	8.8	8.4
21.4	25.9	23.0	16.3	16.1	14.4	15.3	22.2
12.6	9.6	12.7	15.4	13.6	12.6	13.6	11.7
19.9	24.3	18.1	20.0	18.9	15.9	15.7	18.7
14.3	16.9	14.2	16.1	15.4	14.6	19.5	16.0
22.4	13.7	22.8	23.2	28.2	35.5	27.1	23.0

with high concentrations of retail trade industries, did the retail trade sector generate more jobs than service industries.

The mix of service industries within each SDA varies. Boston, Metro South-West, and Metro North have the highest concentrations of high technology service industries in the Commonwealth. In these 3 SDAs, annual service industry wages approximated \$27,000, significantly higher than other SDA's (see table 4). For example, Bristol, Northern Worcester, and Franklin-Hampshire, with smaller concentrations of business service industries, have average annual service industry wages that are only 66 percent of Boston, Metro South-West and Metro North.

The plight of the state's manufacturing sector is also very visible in table 2. Manufacturing employment declined in every SDA over the 1984-1989 period. However, the biggest losses of manufacturing jobs have been in Metro North which lost 26,530 jobs; Metro South-West which

lost 14,230 jobs; and the City of Boston which lost 14,220 jobs.

### Job Distribution by Industry and Occupation

Table 3 shows the distribution of jobs by industry sector and occupational group in the state's 15 SDAs. These tables highlight the geographic differences in the structure of each local area's economy and job market. In the city of Boston, for example, fewer than 6 percent of the jobs are in manufacturing industries. In contrast, almost a quarter of the jobs in Metro South-West and over a third of the jobs in Northern Middlesex are in manufacturing.

The mix of industries and the structure of an area's economy directly influences the number and types of jobs found within the SDA. The distribution of jobs in major occupational categories in table 3 illustrates this point. In Berkshire County, for example, approximately 23 percent of the workforce is employed in manufacturing industries, compared to 18

percent statewide. Because an above average number of manufacturing jobs are concentrated in Berkshire County, a greater percentage of the workforce has jobs in production, construction and operating occupations than statewide (28% vs 23%). Similarly, because Berkshire County is not a major banking and insurance center, approximately 15 percent of the SDA's workers have office jobs in clerical occupations, compared to 19 percent statewide.

The distribution of jobs by occupation is based on 1987 data, collected from the Occupational Employment Statistics Survey. Changes in industry structure since 1987 do not significantly affect an area's occupational staffing patterns. Over the long term, however, occupational staffing patterns do change with the advances of technology and supply of new workers.

When reviewing the data in table 3 and tables A, B and C of this report it is important to remember that labor markets for a particular occu-

**Table 4: 1989 Average Annual Wages by SDA and Industry**

	Berkshire County	Franklin Hampshire	Hampden County	Northern Worcester	Southern Worcester	Northern Middlesex	Lower Merrimack	Southern Essex
Total, all Industries .....	\$21,736	\$20,253	\$21,683	\$21,486	\$23,002	\$26,241	\$24,017	\$22,964
Construction .....	25,773	24,628	28,663	25,645	27,444	27,341	28,270	27,525
Manufacturing .....	31,263	25,813	27,554	27,630	30,368	35,339	29,746	33,533
Communications/Utilities .....	22,544	25,654	26,317	21,110	28,219	22,459	29,672	25,602
Wholesale Trade .....	27,853	23,947	26,759	26,563	27,727	31,911	32,433	31,899
Retail Trade .....	12,158	11,282	12,045	12,015	12,432	13,433	12,554	12,916
Banks, Ins. & Real Estate .....	25,548	20,241	26,010	21,010	25,847	25,222	22,964	25,008
Services .....	19,090	18,778	19,635	18,139	19,872	21,959	20,740	19,862

pation may cover areas wider than those defined by the SDAs. Many professional occupations, for example, have national labor markets.

#### Average Annual Wages

Table 4 lists the average annual wage in each SDA by industry sector. The average industry wage gives a comparative measure of the industry's pay scale. Compiled through the Employment and Wages program, the data approximates an average annual wage for all workers in the

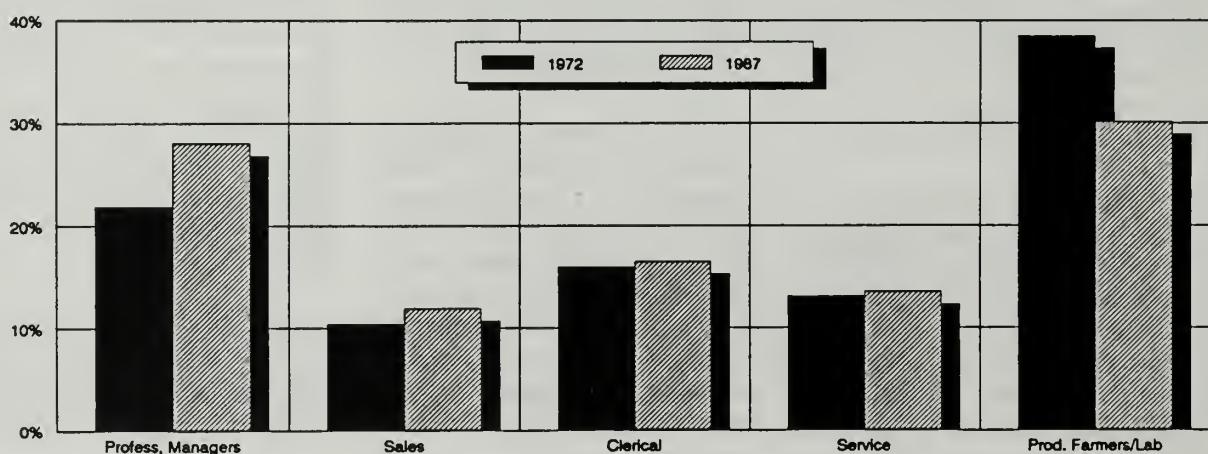
industry. It is computed by dividing the total industry wages by the total number of workers, regardless of part-time or seasonal status.

Given the concentration of banks, law firms, insurance and real estate companies, and high tech industries in Boston, wages here are the highest in the state (\$29,810), followed by Metro South-West (\$28,685), and Metro North (\$26,644). The high concentration of seasonal jobs in New Bedford, Cape Cod and the

Islands contributed to this SDA's reporting the lowest wages in the state (\$19,210).

Wages vary within sectors, depending upon the mix of industries located within the SDA. Given the concentration of computer firms in Metro South-West and Northern Middlesex, for example, the manufacturing wages reported in each of these areas are the highest in the state. In contrast, given the concentration of the low paying apparel

**Chart 3: The percentage share of employment in the US is rising the fastest in occupational groups requiring the most education and decreasing in occupations requiring less education**



Metro North	City of Boston	Metro South-West	South Coastal	Brockton	Bristol	New Bedford Cape & Islands	State of Massachusetts
\$26,644	\$29,810	\$28,527	\$22,685	\$22,568	\$20,306	\$19,210	\$25,220
31,948	35,439	31,775	30,861	29,601	25,010	24,454	29,554
31,688	31,345	36,854	27,016	24,625	23,443	22,333	30,926
30,025	36,196	29,273	31,008	27,067	27,156	25,486	29,889
34,402	34,227	38,408	30,622	29,729	26,733	23,015	32,779
14,747	15,128	15,683	14,238	14,687	12,151	12,743	13,775
26,747	41,550	27,903	26,185	23,572	19,493	22,079	31,525
27,332	27,678	26,609	20,528	20,162	17,916	18,465	24,010

and needle trade industries in Bristol and New Bedford, manufacturing wages here are the lowest in the state.

The same can be said of service industry wages. The city of Boston and Metro North have the highest paying service industries in the state. The average worker employed in Boston's service industries earned \$27,678 in 1989, the highest in the state. Similarly, due to the concentration of high paying engineering, management and research firms in the service industries in Metro North, the area is the only SDA where the average service wage is higher than the average for all wages (\$27,332 vs. \$26,644).

### Education's Importance

With the economy currently restructuring, occupational growth will certainly be affected, since each industry requires a different mix of occupations to produce its goods and services. An analysis of the kinds of jobs generated in the United States between 1972 and 1987 shows that, in general, employment increased the fastest in occupational groups requiring the most education and decreased in occupations requiring less education. In 1972 managerial, executive and administrative occupations were 8.9 percent of all jobs. By 1987, their share increased 2.9 percentage points to 11.8

percent. In contrast, the share of low skilled occupations such as operators, fabricators, and laborers decreased 6 percentage points. In 1972 they were 21.2 percent of all jobs--the largest occupational share--but by 1987 they were only 15.2 percent of all jobs. These trends are expected to continue in the 1990s.

### Education and Jobs in Massachusetts

Despite Massachusetts' recent downturn in employment , the educational requirements in the emerging job market will continue to be more heavily geared toward those jobs requiring either college or post secondary training.

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# The Northern Middlesex Service Delivery Area

## Economic Overview

Manufacturing accounts for the largest portion of Northern Middlesex's economic base. It comprises 33.8 percent of total employment, much of which is concentrated in computers. This lack of diversity in Northern Middlesex's industrial base contributed to the SDA's weak economic performance in the latter half of the 1980s.

During the seventies and early eighties the Northern Middlesex SDA generated a wealth of jobs. Fueled by the demand for computers, the area's economic staple, employment grew rapidly, increasing 24 percent between 1980 and 1984. From 1985 to 1988, however, demand for computers softened and manufacturing jobs declined 7.5 percent. Nevertheless, total employment grew a sluggish 1.6 percent, with computer job losses offset by the demand for construction, business services, and finance, insurance and real estate. As business conditions worsened in 1989, major computer manufacturers merged, consolidated and reorganized, triggering massive layoffs in the industry. The area's problems were compounded by the downturn in construction, retail trade, and finance, insurance and real

estate, resulting in a 2.9 percent employment decline or a loss of 3,075 jobs. In 1990, job losses were much higher.

Because of the high concentration of computer manufacturing here, jobs in production, construction, and machining occupations and professional and technical occupations account for a greater percentage of jobs in Northern Middlesex than is typically found in the state.

## Economic Base

The Northern Middlesex SDA relies heavily on computer manufacturing to drive its economy. The share of total employment captured by the computer industry in Northern Middlesex is over 8 times the statewide average (14.7% vs 1.7%).

Northern Middlesex's computer manufacturing comprises 43.3 percent of the manufacturing base and 15 percent of total employment. Because of the computer industry, manufacturing employs the largest number of workers, (34,440) and accounts for a far greater percentage of total employment

here than in Massachusetts as a whole (33.8% vs 18.3).

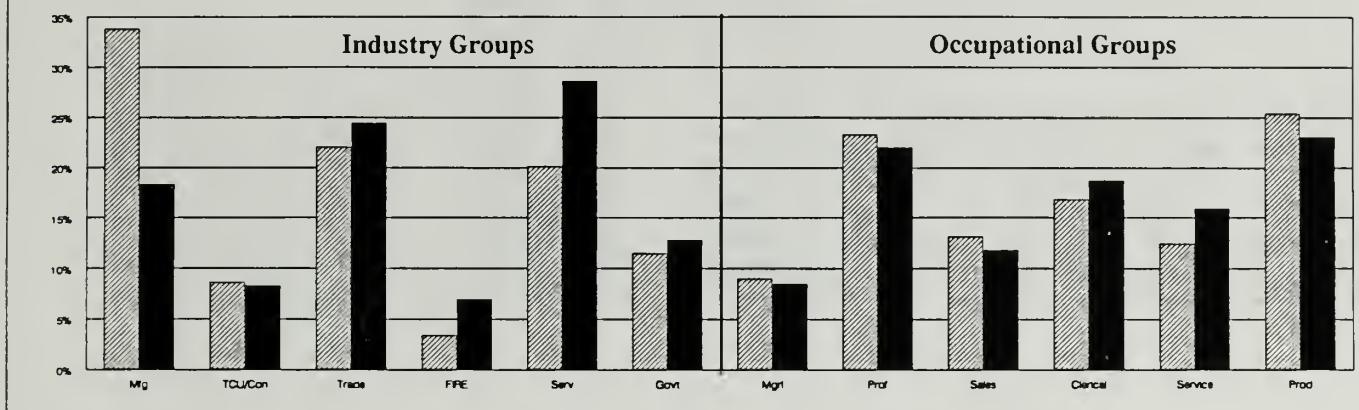
The economic fortunes of Northern Middlesex's other manufacturing industries, however, are closely tied to the cyclical nature of the computer industry and the major corporations in

## Definition of Area

The Northern Middlesex Service Delivery Area (SDA) is comprised of the city of Lowell and seven suburban towns northwest of Boston. Although Northern Middlesex is one of Massachusetts' smaller SDAs in terms of employment, it has 29 percent of the state's jobs in computer manufacturing.

## Distribution of Employment by Industry and Occupation

Northern Middlesex SDA  
 State Average

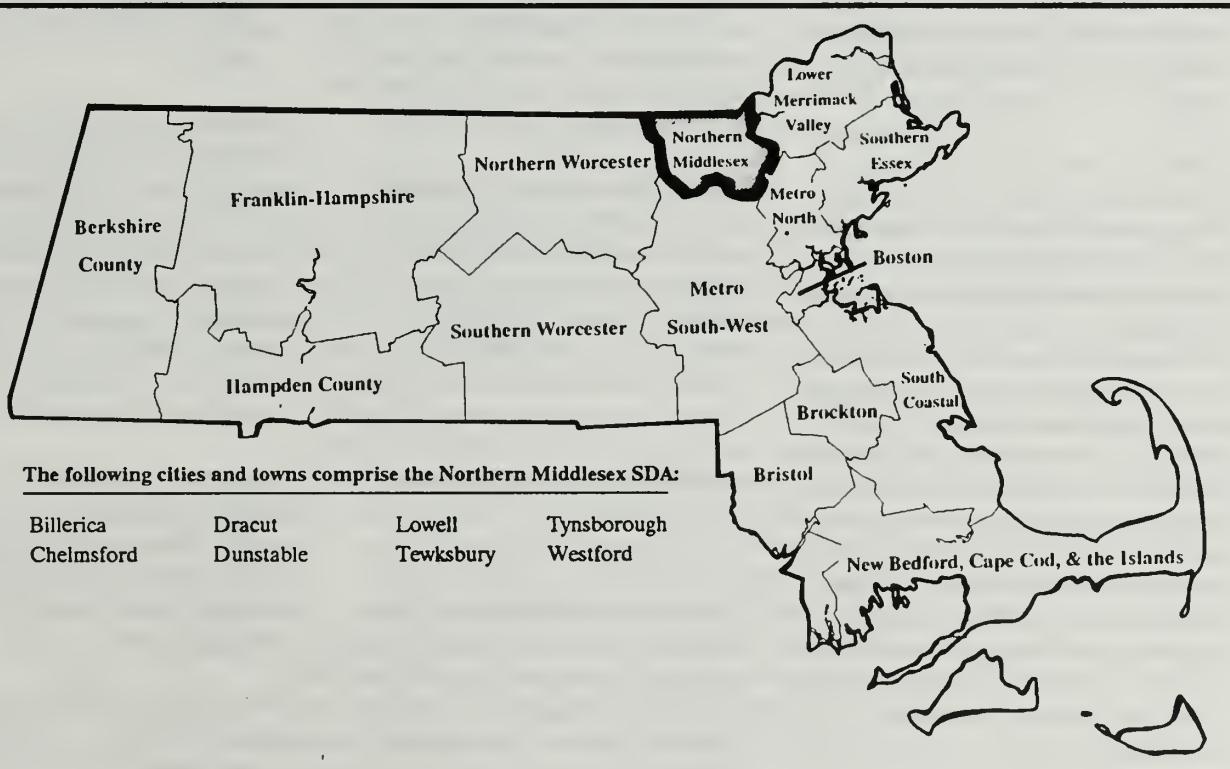


the medical instrument and guided missiles industries. Northern Middlesex's second, third and fourth largest manufacturing industries-- instruments, transportation equipment, and electronics components--account for another 26 percent of its manufacturing employment. Two major firms, however, account for over half of the

employment in these three industries. Although demand for some instruments is independent of the demand for computers, demand for search and navigational instruments, and electronic components such as printed circuit boards and semiconductors is closely tied to the fortunes of the computer and guided missiles industries. Given

the correlation among Northern Middlesex's manufacturers, a drop in employment in any one industry can adversely affect the entire region.

Northern Middlesex lost 12 percent of its manufacturing jobs between 1984 and 1989 while the state lost nearly 17 percent. Northern Middlesex's manu-



## Employment in Major Groups

(Note employment levels exclude federal government, private households and agricultural workers)	Employment	Percent Distribution	
		SDA	State Average
Total, all Occupations .....	99,685	100.0	100.0
Prod/Construction Wkrs & Operators .....	25,320	25.4	23.0
Professional & Technical Workers .....	23,215	23.3	22.0
Clerical Workers .....	16,760	16.8	18.7
Marketing & Sales Workers .....	13,075	13.1	11.8
Service Workers .....	12,390	12.4	15.9
Managers & Executives .....	8,930	9.0	8.5

facturing share of total employment fell 8 percentage points, from 42 percent to 34 percent. In Massachusetts, manufacturing's employment fell 6 percentage points, from 24 to 18 percent.

Service industries, including public educational institutions and hospitals, employ the second largest number of workers (27,822) in Northern Middlesex. However, they comprise a smaller percentage share of total employment here than in all of Massachusetts (27% vs 34%).

Health and education services account for over half the employment in Northern Middlesex's service sector, about the same percentage share as in the state. Business services, the third largest service industry in the SDA and state, comprises 18 percent of the service sector employment in Northern Middlesex compared to 15.4% in Massachusetts. Legal services and engineering and management services, however make up a smaller percentage share of employment in service industries in Northern Middlesex than in Massachusetts and thus account for the smaller percentage share of employment service industries carry in Northern Middlesex.

Retail trade employs the third largest number of workers (18,050), but accounts for a slightly smaller share of employment (17.7% vs 18.4%). The distribution of Northern Middlesex's employment in retail trade is similar to the state, except that food stores account for the greatest percentage of employment (5.2%) and eating and drinking places ranks second with 4.8 percent. In Massachusetts this ranking is reversed, with eating and drinking places accounting for the most employment, followed by food stores.

Construction, finance, insurance and real estate, wholesale trade and communications and utilities represent less than 5 percent each of total employment in Northern Middlesex. Local factors such as population growth and business development account for the smaller percentage share of employment these industries have in Northern Middlesex's economy than in Massachusetts.

### Occupational Composition

Because of the manufacturing concentration in Northern Middlesex, jobs in production, construction, repair, and assembly account for the most jobs (25,320 or 25.4 percent). The second

largest number of jobs in Northern Middlesex and Massachusetts are found in professional and technical occupations. These workers comprise 23.3 percent of total employment, a greater percentage than in Massachusetts. This is primarily due to the large number of high technology manufacturers found in the area, because high tech manufacturers employ more professional and technical workers than manufacturers in general.

Clerical workers have the third largest number of jobs (16,760), but they comprise a smaller percentage share of total employment than in the state. Because Northern Middlesex is not a major finance, insurance and real estate center, a smaller percentage of clerical employment is found in this sector, which traditionally employs large numbers of these workers.

Given the concentration of manufacturing and retail trade sales workers, sales jobs comprise 13.1 percent of the jobs or the third largest share. Service workers and managers account for the remaining employment.

### Employment in Major Groups

The following sections summarize employment in occupations with the

# Top Ten Occupations and Industries with the Largest Employment

<u>Top Ten Occupations</u>	<u>Top Ten Industries</u>
Secretaries .....	2,940 Computer & Office Equipment .....
General Managers & Top Executives .....	2,925 Elementary & Secondary School, public & private .....
Cashiers .....	2,880 Eating & Drinking Places .....
Electrical & Electronic Engineers .....	2,710 Hospitals, public & private .....
Retail Trade Sales Representatives .....	2,460 Electronic Components & Accessories .....
Stock Clerks, sales Floor .....	2,090 Computer & Data Processing Services .....
Helpers and Laborers, nec .....	1,880 Nursing & Personal Care Facilities .....
General Office Clerks .....	1,835 Personnel Services .....
Bookkeepers & Auditing Clerks .....	1,790 Colleges & Universities, public & private .....
Waiters & Waitresses .....	1,665 Professional & Commercial Equipment, Wholesale .....

largest number of jobs in each category. Comparisons made between the state and SDA identify the major differences in the occupational concentration of employment.

## Managerial Occupations

Managers and executives held 8,930 jobs or 9.0 percent of the jobs in Northern Middlesex Statewide, managers have about the same percentage share of jobs (8.5%).

About 38 percent of Northern Middlesex's managers are managers of finance, personnel, purchasing, marketing, administrative services, and engineering. Another 18 percent have middle management jobs in education, health services, manufacturing, construction, communications and utilities and food service.

General managers and top executives, whose jobs are too diverse and general in nature to be classified in any functional or line area of management and administration account for another 32 percent of managerial jobs. These managers generally work through departmental or subordinate executives.

## Professional and Technical Occupations

Professional and technical workers, numbering 23,215, account for 23.3 percent of employment. Engineers and engineering technicians account for the largest number of professional and technical jobs (6,830) or 29.4 percent. Electrical and electronic engineers have 40 percent of the engineering jobs. Teachers, educators, and instructors have 4,670 jobs, the second largest number of professional and technical jobs. With 1,145 jobs, secondary teachers have the most teaching jobs, followed by preschool, kindergarten and elementary school teachers (945 jobs), and college and university professors (765 jobs). Special education teachers, librarians, and teacher aides account for the bulk of the remaining jobs in teaching.

Accountants, auditors and other financial specialists; purchasing agents and buyers; personnel, training, labor relations specialists; and management analysts and other management support workers comprise another 15 percent of the employment. Accountants and auditors are the largest job-holders in this category with 690 jobs.

Health practitioners, technicians, and technologists with 3,410 jobs or 14.6 percent, comprise the fourth largest category of professional and technical employment. Registered nurses, the largest health care occupation, held 1,310 or 38 percent of the health care jobs. Computer and mathematical scientists have 1,940 jobs, the fifth largest number of jobs. Programmers and systems analysts have the bulk of the jobs in these occupations.

## Sales Occupations

Sales workers account for 13 percent of employment in Northern Middlesex compared to 11.8 percent statewide. Retail trade sales representatives, cashiers, and stock clerks account for more than half the sales workers in Massachusetts and Northern Middlesex. Sales engineers and manufacturing and wholesale trade sales representatives have 2,530 jobs or the second greatest number of sales jobs. They make up a greater percentage of the sales workforce in Northern Middlesex than in Massachusetts (19% vs 14.6%) and thus account for the SDA's greater percentage share of employment in sales occupations.

# Labor Force, Employment and Unemployment

Labor Force	Employed	Unemployed	Unemployment Rate	
			SDA	State Average
1983	127,880	120,480	7,400	5.8
1984	136,790	131,390	5,410	4.0
1985	139,200	133,930	5,270	3.8
1986	138,020	132,430	5,600	4.1
1987	139,020	134,320	4,700	3.4
1988	142,600	137,780	4,820	3.4
1989	143,600	137,170	6,430	4.5
1990	139,780	130,300	9,480	6.8

## Clerical Occupations

The 16,760 clerical workers account for 16.8 percent of the jobs in Northern Middlesex. Statewide, clerical workers have a greater percentage share of the jobs (18.7%). Secretaries, bookkeepers, receptionists and other general office workers account for 57 percent of employment in clerical occupations. Shipping and receiving clerks, schedulers, and stock clerks have another 13.4 percent of clerical jobs. Bank tellers, insurance adjusters and investigators account for 8 percent of clerical workers compared to 14.5 percent statewide. This difference largely accounts for the SDA's smaller percentage share of employment in clerical occupations.

## Service Occupations

Jobs in food service occupations account for nearly half the 12,390 jobs in service occupations. Cooks, waiters and waitresses, and dining room and cafeteria attendants have the majority of food service jobs. Security guards, nursing aides, and janitors and cleaners make up another 25 percent of employment in service occupations.

## Production, Construction and Machining Occupations

Production and construction workers, mechanics, installers, operators, assem-

blers, and laborers have the most jobs (25,320), 25.4 percent of the jobs in Northern Middlesex. Machine setters, set-up operators, operators and tenders are the largest jobholders in this group with 4,240 jobs, 16.8 percent of employment. Assemblers and other hand workers have 3,745 jobs, the second largest number of jobs. Transportation and material moving equipment operators, such as truck and bus drivers, service station attendants, and operating engineers, comprise the third largest employment category with 3,590 jobs. The fourth and fifth largest jobholders, mechanics, repairers and installers and helpers and laborers, comprise 13 and 12.6 percent of employment respectively. Supervisors and inspectors and construction trades workers with 11 percent each and precision production workers with 6 percent account for the remaining employment.

## Population

Population growth in Northern Middlesex in the eighties surpassed the 6 percent population increase in the seventies. A strong economy and comparatively lower housing prices in some areas of the SDA fueled the growth in population by 7 percent, from 226,991 in 1980 to 244,320 in 1988.

Most of the population growth in the eighties stemmed from an excess in births over deaths. However, the area had the fourth largest number of new residents in the state, with over 1,100 people moving into the area between 1980 and 1988.

## Labor Force/ Unemployment

The strong economy, dramatic increases in the numbers of women looking for work, and the "aging" of the baby boomers caused Northern Middlesex's labor force growth to exceed the population growth rate. From 1980 to 1989 the labor force expanded 25 percent, from 115,110 to 143,600.

Much of the growth or decline in a local area's labor force can be attributed to the economy and the unemployment situation. For example, from 1980 to 1984, when Northern Middlesex's economy expanded rapidly, the labor force expanded by 18 percent. From 1984 to 1989 when economic growth slowed, the labor force expanded only 5 percent. Between 1989 and 1990 when employment declined significantly, the labor force shrank 2.7 percent, losing 3,820 workers.

With jobs increasing faster than the

number of job seekers, unemployment rates in Northern Middlesex remained at or below the state level for most of the decade. In 1989, however, the number of unemployed workers rose sharply and the jobless rate exceeded the state's by half a percentage point. (see table). Unemployment in 1990 continued to increase faster than in the state and now the SDA's jobless rate is nearly one percentage point higher than the state's. (6.8% vs 6.0%).

### **Wages/Income**

Northern Middlesex has the fourth highest wages and salaries in the state, after the city of Boston, Metro South/

West, and Metro North. In 1989, the average annual wage for all workers covered by unemployment insurance in Northern Middlesex was \$26,241, 104% of the statewide average (\$25,220).

The higher than average wages in Northern Middlesex can be explained by the high concentration of manufacturing within the SDA. Manufacturing is not only the highest paying sector but it also employs the most workers. Moreover, Northern Middlesex's manufacturing wages are the second highest in the state (31,345), after the Metro Southwest SDA.

Other income figures identifying the total earnings of people living in the Northern Middlesex SDA are not geographically comparable. However, per capita income for the larger Middlesex County area can be used to approximate the income received by Northern Middlesex's residents. In 1988 Middlesex County's per capita income totaled \$23,368, third highest in the state. In addition, Middlesex County derives a greater percentage of its income from earnings, interest, dividends and rents than the rest of the state.

**Table A:**  
**Northern Middlesex**  
**Employment**  
**by Occupation**

		Percent Distribution
	Employment	
	Total Occupational Employment	99685
		100.00
<b>Managerial Occupations</b>		
	Managerial And Administrative Occupations	8930
		8.95
	Staff And Administrative Specialty Managerial Occupations	3405
	Financial Managers	1025
	Personnel, Training And Labor Relation Managers	255
	Purchasing Managers	220
	Marketing, Advertising And Related Managers	610
	Administrative Service Managers	440
	Engineering, Mathematical And Natural Science Managers	855
	Line And Middle Management Industry Specific Occupations	1645
	Education Administrators	300
	Medical And Health Service Managers	115
	Property And Real Estate Managers And Administrators	70
	Industrial Production Managers	705
	Construction Managers	190
	Communications, Transportation, Utilities Operations Managers	80
	Food Service And Lodging Managers	185
	Other Managerial And Administrative Occupations	3880
	Pub Admin Chief Executives, Legislators, Genral Administrators	95
	General Managers And Top Executives	2925
	All Other Managers And Administrators	860
<b>Professional &amp; Technical Occupations</b>		
	Professional, Paraprofessional And Technical Occupations	23215
		23.25
<b>(Management Support Occupations)</b>		
	Accountants, Auditors And Other Financial Specialists	1475
	Underwriters	70
	Loan Officers And Counselors	150
	Accountants And Auditors	690
	Budget Analysts	125
	All Other Financial Specialists	440
	Purchasing Agents And Buyers	415
	Wholesale And Retail Buyers, Except Farm Products	125
	Purchasing Agents - Exc Wholesale, Retail & Farm Products	290
	Personnel, Training, Labor Relations Specialists And Related Personnel, Training And Labor Relations Specialists	310
		0.31
	310	0.31
	Other Management Support Workers	1360
	Cost Estimators	190
	Construction And Building Inspectors	50
	Assessors	80
	All Other Management Support Workers	1040
		1.36
<b>(Engineers &amp; Engineering Technicians)</b>		
	Engineers	4545
	Aeronautical And Astronautical Engineers	90
	Chemical Engineers	50
	Civil Engineers, Including Traffic Engineers	100
	Electrical And Electronic Engineers	2710
	Industrial And Safety Engineers	370
	Mechanical Engineers	830
	All Other Engineers	395
		4.56
		0.09
		0.05
		0.10
		2.72
		0.37
		0.83
		0.40

**Table A:**  
**Northern Middlesex**  
**Employment**  
**by Occupation**

	Employment	Percent Distribution
(Computer & Math Scientists)		
Architects And Surveying And Mapping Scientists	60	0.06
Architects, Except Landscape And Marine	60	0.06
Engineering And Related Technicians And Technologists	2220	2.22
Electrical, Electronic Engineering Technicians, Technologists	1090	1.09
Industrial Engineering Technicians And Technologists	65	0.06
Mechanical Engineering Technicians And Technologists	200	0.20
Drafters	330	0.33
All Other Engineering Technicians And Technologists	535	0.54
Physical Scientists	140	0.14
Chemists, Except Biochemists	55	0.06
All Other Physical Scientists	85	0.08
Physical And Life Science Technicians And Technologists	80	0.08
Chemical Technicians, Technologists, Exc Health, Engineering	80	0.08
Computer Scientists And Related Workers	1785	1.79
Systems Analysts, Electronic Data Processing	810	0.81
Computer Programmers	975	0.98
Mathematical Scientists And Related Workers	155	0.15
Operations And Systems Researchers	95	0.09
All Other Mathematical Scientists	60	0.06
Social Scientists, Including Urban And Regional Planners	110	0.12
Economists, Including Market Research Analysts	55	0.06
All Other Social Scientists	55	0.06
Other Selected Social Science Related Workers	465	0.46
Social Workers, Medical And Non-medical	215	0.22
Social Service Technicians	115	0.11
Recreation Workers	135	0.13
(Lawyers, Paralegals & Related)		
Lawyers And Related Workers	160	0.16
Lawyers	160	0.16
Legal Assistants And Technicians, Except Clerical	70	0.07
Paralegal Personnel	70	0.07
(Teachers Educators, Librarians & Related)		
College And University Faculty	765	0.77
Other Teachers And Instructors	3330	3.35
Teachers, Preschool And Kindergarten	240	0.24
Teachers, Elementary	705	0.71
Teachers, Secondary School	1145	1.15
Teachers, Special Education	240	0.24
Teachers And Instructors, Vocational Education	150	0.15
Instructors And Coaches, Sports	195	0.20
All Other Teachers And Related Workers	655	0.66
Librarians, Archivists, Curators, Other Selected Ed Rel Works	575	0.57
Librarians, Professional	165	0.17
Technical Assistants, Library	85	0.08
Vocational And Educational Counselors	115	0.11
Teacher Aides, Paraprofessional	210	0.21

**Table A:**  
**Northern Middlesex**  
**Employment**  
**by Occupation**

		Percent Distribution
	Employment	
(Health Practitioners, Technicians & Technologists)		
Health Diagnosing And Treating Practitioners	300	0.30
Physicians And Surgeons	190	0.19
Dentists	110	0.11
Therapists	190	0.19
Physical Therapists	55	0.06
All Other Therapists	135	0.13
Selected Health Care Maintenance And Treating Workers	2060	2.06
Registered Nurses	1310	1.31
Licensed Practical Nurses	525	0.53
Emergency Medical Technicians	100	0.10
Pharmacists	125	0.12
Other Health Professionals, Paraprofessionals And Technicians	855	0.85
Medical And Clinical Laboratory Technologists And Technicians	155	0.15
Dental Hygienists	135	0.13
Radiologic Technicians	150	0.15
All Other Health Professionals And Others	415	0.42
Selected Writers, Artists, Entertainers, Athletes And Related	835	0.84
Writers And Editors, Including Technical Writers	485	0.49
Public Relations Specialists And Publicity Writers	50	0.05
Artists And Related Workers	65	0.06
Interior Designers	180	0.18
Athletes, Coaches, Umpires And Related	55	0.06
Other Professional, Paraprofessional, Technical Occupations	955	0.96
All Other Professional, Paraprofessional And Technicians	955	0.96
Marketing & Sales Occupations		
Sales And Related Occupations	13075	13.10
First Line Supervisors And Manager/supervisors	1110	1.11
Sales Occupations, Services	550	0.54
Sales Agents And Placers, Insurance	125	0.12
Travel Agents	70	0.07
Sales Agents, Advertising	115	0.11
All Other Sales Representatives, Service	240	0.24
Merchandise, Products, Other Sales, Sales-related Occupations	11415	11.45
Sales Engineers	160	0.16
Sales Reps, Scientific And Related Products And Services	1440	1.44
Sales Reps, Exc Scientific And Related Products Or Services	930	0.93
Salespersons, Retail Trade	2460	2.47
Salespersons, Parts	205	0.21
Counter And Rental Clerks	240	0.24
Stock Clerks, Sales Floor	2090	2.10
Cashiers	2880	2.89
All Other Sales And Related Workers	1010	1.01
Clerical Occupations		
Clerical And Administrative Support Occupations	16760	16.83
First Line Supervisors - Clerical And Administrative Clerks	1405	1.41
Banking, Security, Finance And Credit Workers	1155	1.16
Tellers	735	0.74
New Accounts Clerks	120	0.12
Loan And Credit Clerks	120	0.12
Adjustment Clerks	180	0.18

**Table A:**  
**Northern Middlesex**  
**Employment**  
**by Occupation**

	Employment	Percent Distribution
Selected Insurance Workers	95	0.09
Insurance Policy Processing Clerks	95	0.09
Investigative And Related Workers, Except Insurance	75	0.07
Bill And Account Collectors	75	0.07
Other Selected Industry Specific Workers	360	0.36
Library Assistants And Bookmobile Drivers	155	0.15
Teacher Aides And Education Assistants	205	0.21
Secretaries Stenographers And Typists	3305	3.32
Legal Secretaries	160	0.16
Medical Secretaries	205	0.21
Secretaries	2940	2.95
Other Secretarial Related And General Office Workers	6135	6.16
Stenographers	70	0.07
Receptionists And Information Clerks	625	0.63
Typists And Word Processors	635	0.64
Personnel Clerks, Except Payroll And Timekeeping	120	0.12
File Clerks	160	0.16
Order Clerks - Materials, Merchandise And Service	240	0.24
Procurement Clerks	60	0.06
Interview Clerks, Except Personnel And Welfare	125	0.12
Customer Service Representative, Utilities	55	0.06
Bookkeeping, Accounting, Auditing Clerks	1790	1.80
Payroll And Timekeeping Clerks	130	0.13
Billing, Cost And Rate Clerks	290	0.29
General Office Clerk	1835	1.84
Electronic Data Processing, Other Office Machine Occupations	990	1.00
Computer Operators, Except Peripheral Equipment	375	0.38
Data Entry Keyers, Except Composing	380	0.38
All Other Office Machine Operators	235	0.24
Communications Equipment Operators	235	0.24
Switchboard Operator	235	0.24
Material Recording, Scheduling, Dispatching, Distributing	2250	2.26
Dispatchers - Except Police, Fire And Ambulance	75	0.07
Production, Planning, Expediting Clerks	530	0.53
Stock Clerks - Stockroom, Warehouse And Storage Yard	725	0.73
Order Fillers, Wholesale And Retail Sales	120	0.12
Traffic, Shipping And Receiving Clerks	625	0.63
All Other Material Recording And Related Workers	175	0.18
All Other Clerical And Administrative Support Occupations	755	0.76
All Other Clerical And Administrative Support Workers	755	0.76
Service Occupations	12390	12.40
Service Occupations		
First Line Supervisors - Service	375	0.38
Fire Fighting And Prevention Supervisors	60	0.06
All Other Service Supervisors	315	0.32
Protective Service Occupations	1370	1.38
Fire Fighters	355	0.36
Police Detectives And Investigators	365	0.37
Guards And Watch Guards	575	0.58
All Other Protective Services	75	0.07

**Table A:**  
**Northern Middlesex**  
**Employment**  
**by Occupation**

	Employment	Percent Distribution
Food And Beverage Preparation And Service Workers	5760	5.78
Hosts And Hostesses	160	0.16
Bartenders	475	0.48
Waiters And Waitresses	1665	1.67
Dining Room, Counter And Cafe Attendants	455	0.46
Bakers, Bread And Pastry	115	0.11
Butchers And Meat Cutters	150	0.15
Cooks, Restaurant	385	0.39
Cooks, Institution Or Cafe	230	0.23
Cooks, Speciality Fast Food And Fast Food	370	0.37
Food Preparation Workers	790	0.79
All Other Food Service Workers	965	0.97
Health Service And Related Occupations	2130	2.13
Dental Assistants	190	0.19
Nurse Aides, Orderlies And Attendants	1270	1.27
Home Health Aides	340	0.34
Psychiatric Aides	100	0.10
All Other Health Servicers	230	0.23
Cleaning, Building Service Occupations, Exc Private Households	1825	1.83
Janitors And Cleaners, Including Housekeepers And Maids	520	0.52
Janitors And Cleaners	1185	1.19
All Other Cleaning And Building Service Workers	120	0.12
Personal Service Occupations	385	0.38
Cosmetologists And Related	320	0.32
Child Care Workers	65	0.06
All Other Service Occupations	290	0.29
All Other Service Workers	290	0.29
Agricultural, Forestry, Fishing And Related Occupations	255	0.26
Gardners And Groundskeepers, Except Farm	190	0.19
All Other Agricultural, Forestry And Related Workers	65	0.07
Production, Construction & Maintenance Occupations	25315	25.44
First Line Supervisors, Manager/supers - Prod, Constr, Maint	1635	1.65
First Line Supervisors - Mechanics And Repairers	470	0.47
First Line Supervisors - Constuction And Related	205	0.21
First Line Supervisors - Production And Related	755	0.76
First Line Supervisors - Transportation And Related	55	0.06
First Line Supervisors - Helpers And Others	85	0.08
Blue Collar Worker Supervisors	65	0.07
Inspectors And Related Occupations	1160	1.16
(Mechanics, Installers & Repairers)		
Machinery And Related Mechanics, Installers And Repairers	1035	1.04
Machinery Maintenance Mechanics	170	0.17
All Other Machinery Maintenance Mechanics	50	0.05
Maintenance Repairers, General Utility	815	0.82
Mobile Equipment Mechanics, Installers And Repairers	920	0.93
Automotive Mechanics	495	0.50
Automotive Body And Related Repairers	205	0.21
Bus And Truck Mechanics And Diesel Mechanics	150	0.15
Mobile Heavy Equipment Mechanics	70	0.07

**Table A:**  
**Northern Middlesex**  
**Employment**  
**by Occupation**

	Employment	Percent Distribution
Communications Equipment Mechanics, Installers And Repairers	50	0.05
All Other Commun Equip Maintainers, Installers, Repairers	50	0.05
Other Electrical, Electronic Equip Mechs, Installers, Repairs	575	0.58
Telephone And Cable Tv Line Installers And Repairers	60	0.06
Data Processing Equipment Repairers	290	0.29
Station Installers And Repairers, Telephone	65	0.07
All Other Electric, Electronic Equip Mechs, Reprs, Instllrs	160	0.16
Other Mechanics, Installers And Repairers	780	0.78
Heating, Air Conditioning, Refrigeration Mechs, Installers	230	0.23
All Other Mechanics, Installers And Repairers	550	0.55
 <b>(Construction Trades Occupations)</b>		
Selected Carpentry And Related Workers	1010	1.02
Carpenters	815	0.82
Drywall Installers And Tapers	195	0.20
Selected Electrical And Related Workers	395	0.40
Electricians	395	0.40
Selected Masonry And Related Workers	70	0.07
Reinforcing Metal Workers	70	0.07
Selected Painting And Related Workers	175	0.18
Painters, Paperhanglers, Construction And Maintenance	175	0.18
Selected Plumbing And Related Workers	365	0.37
Plumbers, Pipefitters And Steamfitters	315	0.32
Pipelayers	50	0.05
Selected Road, Rail, Related Constr & Maint Wrkers, Exc Masons	125	0.12
Highway Maintenance Workers	125	0.12
All Other Construction Trades Workers	180	0.18
Roofers	55	0.06
Glaziers	125	0.12
Extractive And Related, Including Blasters	445	0.45
Rock Splitters, Quarry	60	0.06
All Other Construction And Extractive Occupations	385	0.39
 <b>(Precision Production Occupations)</b>		
Precision Metal Workers	915	0.92
Tool And Die Makers	65	0.07
Machinists	530	0.53
Sheet Metal Workers	235	0.24
All Other Precision Metal Workers	85	0.08
Precision Woodworkers	110	0.11
All Other Precision Woodworkers	110	0.11
Precision Textile, Apparel And Furnishings Workers	130	0.13
All Other Precision Textile And Related Workers	130	0.13
Precision Printing Workers	55	0.06
All Other Precision Printing Workers	55	0.06
Other Precision Workers	270	0.27
Precision Foundry Mold And Core Makers	95	0.09
All Other Precision Workers	175	0.18

**Table A:**  
**Northern Middlesex**  
**Employment**  
**by Occupation**

		Percent Distribution
	Employment	
(Machine Setters, Set-up Operators, Operators, & Tenders)		
Machine Tool Cutting Setters, Ops And Related - Metal, Plas	370	0.37
Lathe, Turning Mach Tool Setters, Set-up Operators, Metal, Pl	110	0.11
Drilling, Boring Mach Tool Setters, Set-up Ops, Metal, Pl	60	0.06
Grinding, Lapping, Buffing Machine Tool Setters, Set-up Ops	110	0.11
Machine Tool Cutting Operators	90	0.09
Machine Forming Setters, Operators And Related Workers	320	0.32
Punching Machine Setters And Set-up Operators, Metal, Plastic	55	0.06
Extruding, Drawing Machine Setters, Set-up Ops, Metal And Pla	120	0.12
Sheetmetal Machine Operator	145	0.14
Numerical And Combination Tool Setters, Operators And Related	165	0.16
Numerical Control Machine Tool Operators, Tenders, Met, Plas	90	0.09
Combination Machine Tool Operators, Metal And Plastics	75	0.07
Metal, Plastic Processing Machine Setters, Operators, Related	320	0.31
Plastic Molding, Casting Machine Operators And Tenders	150	0.15
Metal Molding, Coremaking, Casting Mach Setters, Set-up Ops	95	0.09
Electrolytic Plating And Coating Machine Operators, Tenders	75	0.07
All Other Metal, Plastic Machine Setters, Operators, Related	275	0.28
All Other Metal, Plastic Machine Setters, Set-up Operators	110	0.11
All Other Metal And Plastic Machine Operators And Tenders	165	0.17
Woodworking Machine Setters, Operators, Other Related Workers	95	0.09
Woodworking Machine Operators And Tenders, Except Sawing	95	0.09
Printing, Binding And Related Workers	340	0.34
All Other Printing Press Setters And Set-up Operators	65	0.07
All Other Printing Related Setters And Set-up Operators	80	0.08
Printing Press Machine Operators	85	0.08
All Other Printing, Binding, Related Machine Ops And Tenders	110	0.11
Textile, Related Setters, Operators And Other Related Workers	1095	1.10
Textile Machine Setters And Set-up Operators	85	0.08
Textile Machine Ops, Tenders - Winding, Twisting, Knitting	375	0.38
Sewing Machine Operators, Garment	190	0.19
Sewing Machine Operators, Non-garment	60	0.06
Laundry And Drycleaning Machine Operators	305	0.31
Pressing Machine Operators, Textile	80	0.08
Other Machine Setters, Set-up Operators, Operators, Tenders	1280	1.30
Paper Goods Machine Setters And Set-up Operators	80	0.08
Coating, Painting, Spraying Machine Setters, Set-up Operators	65	0.07
Coating, Painting And Spraying Machine Operators And Tenders	55	0.06
Crushing, Grinding, Mixing, Blending Machine Ops And Tenders	60	0.06
Packaging And Filling Machine Operators	255	0.26
All Other Machine Operators	765	0.77
(Assemblers & other Hand Workers)		
Precision Assemblers	880	0.88
Electromechanical Equipment Assemblers - Prec	240	0.24
Electrical And Electronic Equipment Assembler	530	0.53
All Other Precision Metal Assemblers	110	0.11
Other Hand Workers, Including Assemblers And Fabricators	2865	2.88
Electrical And Electronic Assemblers	780	0.78
Welders And Cutters	140	0.14
Solderers And Brazers	185	0.19
Grinding And Polishing Workers, Hand	90	0.09
Assemblers, Fabricators - Exc Mach, Electrc, Electrnc, Prec	1225	1.23
All Other Hand Workers	445	0.45

**Table A:**  
**Northern Middlesex**  
**Employment**  
**by Occupation**

	Employment	Percent Distribution
Plant And Systems Occupations	150	0.15
Water And Liquid Waste Treatment Plant And System Operators	95	0.09
All Other Plant And System Operators	55	0.06
(Transportation & Material Moving Machine & Vehicle Operators)		
Motor Vehicle Operators	2460	2.47
Truck Drivers, Heavy	1010	1.01
Truck Drivers, Light - Including Delivery And Route Drivers	815	0.82
Bus Drivers	100	0.10
Bus Drivers, School	200	0.20
Taxi Drivers And Chauffeurs	130	0.13
Driver/sales Workers	205	0.21
All Other Transportation And Related Workers	495	0.50
Service Station Attendants	375	0.38
All Other Transportation Workers	120	0.12
(Helpers, Laborers & Material Movers—Hand)		
Material Moving Equipment Operators	615	0.62
Grading, Dozing And Scraper Operators	80	0.08
Industrial Truck And Tractor Operators	255	0.26
Operating Engineers	90	0.09
All Other Material Moving Equipment Operators	190	0.19
Constructive Trades, Extractive Worker Helpers	520	0.52
Helpers, All Other Construction Trades	520	0.52
Machine Feeders And Offbearers	260	0.26
Machine Feeders And Offbearers	260	0.26
Freight, Stock And Material Handlers, Hand	60	0.06
Refuse Collectors	60	0.06
All Other Helpers, Laborers, Material Movers - Hand	2350	2.36
Hand Packers And Packagers	340	0.34
Vehicle Washers And Equipment Cleaners	130	0.13
All Other Helpers, Laborers, Movers - Hand	1880	1.89

**Table B:**  
**Northern Middlesex**  
**Employment in**  
**Selected Occupations**  
**by Industry**

	Employment	Percent Distribution
<b>Managerial &amp; Executive Occupations</b>		
o Financial Managers	1025	100.00
Office Computing Machinery Service	235	22.93
All Other Finance, Insurance And Real Estate	195	18.54
All Other Durable Goods Manufacturing	160	15.61
Commercial And Stock Savings Banks	115	11.22
Construction	95	9.27
State And Local Government	80	7.80
Nondurable Goods Manufacturing	50	4.88
o Marketing & Advertising Managers	40	3.41
Office Computing Machinery	610	100.00
All Other Durable Goods Manufacturing	245	40.16
Wholesale And Retail Trade	75	12.30
All Other Business Services	60	9.84
Medical Instruments And Supplies	55	9.01
Nondurable Goods Manufacturing	50	8.19
o Engineering, Math and Science Managers	50	8.20
Office Computing Machinery	855	100.00
Computer And Data Processing Services	435	50.88
All Other Durable Goods Manufacturing	145	16.96
Electronic Components And Accessories	100	11.69
o Industrial Production Managers	65	7.60
Office Computing Machinery	705	100.00
All Other Durable Goods Manufacturing	360	51.06
Nondurable Goods Manufacturing	215	30.50
Electronic Components And Accessories	70	9.22
o General Managers & Top Executives	60	8.51
All Other Service	2925	100.00
All Other Wholesale And Retail Trade	360	12.13
Finance, Insurance And Real Estate	315	10.78
Eating And Drinking Places	220	7.53
All Other Durable Goods Manufacturing	200	6.84
All Other Construction	190	6.49
Office Computing Machinery	175	5.98
Misc. Retail Stores	165	5.64
All Other Wholesale Trade-durable Goods	155	5.30
Food Stores	130	4.44
Machinery, Equipment And Supplies	120	4.10
All Other Nondurable Goods Manufacturing	105	3.59
o Professional & Technical Occupations	100	2.91
Accountants & Auditors	690	100.00
Office Computing Machinery Service	200	28.99
Wholesale And Retail Trade	175	25.37
All Other Durable Goods Manufacturing	95	13.77
	85	12.32

**Table B:**  
**Northern Middlesex**  
**Employment in**  
**Selected Occupations**  
**by Industry**

		Employment	Percent Distribution
o	Personnel, Training & Labor Relations Specialists	310	100.00
	Office Computing Machinery	170	54.84
	All Other Durable Goods Manufacturing	60	19.36
	Service	60	19.36
o	Electrical & Electronic Engineers	2710	100.00
	Office Computing Machinery	1725	63.65
	Computer And Data Processing Services	455	16.79
	All Other Durable Goods Manufacturing	320	11.81
	Electronic Components And Accessories	150	5.54
o	Industrial & Safety Engineers	370	100.00
	Office Computing Machinery	235	63.52
	All Other Durable Goods Manufacturing	60	16.22
	All Other Electrical And Electronic Equipment	55	14.86
o	Mechanical Engineers	830	100.00
	All Other Durable Goods Manufacturing	545	65.67
	Office Computing Machinery	120	14.46
	Medical Instruments And Supplies	90	10.84
	Service	55	6.62
o	Electrical & Electronic Engineering Technicians & Technologists	1090	100.00
	Office Computing Machinery	720	66.06
	All Other Durable Goods Manufacturing	130	11.92
	Electronic Components And Accessories	70	6.42
	Machinery, Equipment And Supplies	65	5.96
	All Other Business Services	60	5.51
o	Drafters	330	100.00
	All Other Durable Goods Manufacturing	115	34.86
	Office Computing Machinery	100	30.30
	Service	95	28.79
o	Systems Analysts	810	100.00
	Office Computing Machinery	435	53.70
	Computer And Data Processing Services	210	25.93
	All Other Durable Goods Manufacturing	75	9.25
o	Computer Programmers	975	100.00
	Office Computing Machinery	505	51.80
	Computer And Data Processing Services	250	25.64
	All Other Durable Goods Manufacturing	60	6.15
	All Other Business Services	55	5.64
o	College & University Faculty	765	100.00
	Colleges, Universities, Professional Schools, Junior Colleges	550	71.90
	Elementary And Secondary Schools And Voc. Ed. High Schools	190	24.84
o	Elementary Teachers	705	100.00
	Elementary And Secondary Schools	705	100.00

**Table B:**  
**Northern Middlesex**  
**Employment in**  
**Selected Occupations**  
**by Industry**

		Employment	Percent Distribution
o Secondary School Teachers		1145	100.00
Elementary And Secondary Schools		1145	100.00
o Registered Nurses		1310	100.00
Hospitals		815	62.21
All Other Health Services		235	17.94
Nursing And Personal Care Facilities		130	9.92
All Other Service		70	5.35
Elementary And Secondary Schools		50	3.82
o Licensed Practical Nurses		525	100.00
Hospitals		300	57.14
Nursing And Personal Care Facilities		135	25.71
All Other Service		90	17.15
o Writers & Editors, inc. Technical Writers		485	100.00
Office Computing Machinery		225	46.39
Printing And Publishing		145	29.90
Computer And Data Processing Services		60	12.37
<b>Marketing &amp; Sales Occupations</b>			
o Sales Supervisors		1110	100.00
Food Stores		290	26.13
Office Computing Machinery		220	19.82
All Other Wholesale And Retail Trade		125	11.26
Motor Vehicle Dealers (new And Used)		80	7.21
Misc. Retail Stores		75	6.76
All Other Wholesale Trade-durable Goods		70	6.31
Service		60	5.40
All Other Durable Goods Manufacturing		55	4.95
Machinery, Equipment And Supplies		50	4.51
o Sales Reps, Scientific & Related Products & Services		1440	100.00
Office Computing Machinery		845	58.68
Machinery, Equipment And Supplies		165	11.46
Medical Instruments And Supplies		155	10.76
All Other Wholesale Trade-durable Goods		85	5.90
Computer And Data Processing Services		70	4.86
o Sales Reps, ex Scientific & Related Products & Services		930	100.00
Machinery, Equipment And Supplies		195	20.97
Wholesale Trade-nondurable Goods		195	20.97
All Other Wholesale Trade-durable Goods		140	15.05
Service		90	9.68
Printing And Publishing		75	8.07
Office Computing Machinery		65	6.99
All Other Durable Goods Manufacturing		65	6.98
Construction		60	6.45

**Table B:**  
**Northern Middlesex**  
**Employment in**  
**Selected Occupations**  
**by Industry**

		Percent Distribution
	Employment	
o Retail Trade Representatives	2460	100.00
All Other Wholesale And Retail Trade	975	39.63
Department Stores	535	21.75
Misc. Retail Stores	470	19.11
Motor Vehicle Dealers (new And Used)	210	8.54
Food Stores	115	4.67
Machinery, Equipment And Supplies	55	2.24
Wholesale Trade-nondurable Goods	55	2.23
o Stock Clerks, Sales Floor	2090	100.00
Food Stores	1270	60.77
All Other Wholesale And Retail Trade	430	20.57
Misc. Retail Stores	320	15.31
Department Stores	70	3.35
o Cashiers	2880	100.00
Food Stores	1340	46.53
Misc. Retail Stores	460	15.97
All Other Wholesale And Retail Trade	395	13.72
Eating And Drinking Places	350	12.15
Department Stores	155	5.38
Service	135	4.17

**Clerical & Administrative  
Support Occupations**

o Clerical Supervisors	1405	100.00
Office Computing Machinery	405	28.83
All Other Wholesale And Retail Trade	165	11.74
All Other Finance, Insurance And Real Estate	150	10.68
Transportation And Public Utilities	145	10.32
All Other Wholesale Trade-durable Goods	100	7.11
o Bank Tellers	735	100.00
All Other Finance, Insurance And Real Estate	370	50.34
Commercial And Stock Savings Banks	365	49.66
o Secretaries	2940	100.00
Office Computing Machinery	705	23.98
All Other Service	300	9.53
All Other Durable Goods Manufacturing	265	9.02
Finance, Insurance And Real Estate	180	6.13
Construction	170	5.78
Personnel Supply Services	145	4.93
Elementary And Secondary Schools	130	4.42
Computer And Data Processing Services	110	3.74
Local Government, Except Education And Hospitals	100	3.40
All Other Wholesale And Retail Trade	95	3.23
Colleges, Universities, Professional Schools, Junior Colleges	85	2.89
Medical Instruments And Supplies	80	2.72
Printing And Publishing	80	2.72
All Other Nondurable Goods Manufacturing	80	2.38
All Other Wholesale Trade-durable Goods	80	2.72

**Table B:**  
**Northern Middlesex**  
**Employment in**  
**Selected Occupations**  
**by Industry**

	Employment	Percent Distribution
Miscellaneous Business Services	80	2.72
Machinery, Equipment And Supplies	75	2.55
o Receptionists & Information Clerks	625	100.00
All Other Health Services	160	25.60
All Other Service	145	22.40
Finance, Insurance And Real Estate	90	14.40
All Other Business Services	80	12.80
Wholesale And Retail Trade	65	10.40
Durable Goods Manufacturing	55	8.80
o Typists & Word Processors	635	100.00
Personnel Supply Services	170	26.77
All Other Service	75	11.81
All Other Health Services	65	10.24
Colleges, Universities, Professional Schools, Junior Colleges	65	10.24
All Other Durable Goods Manufacturing	60	9.44
All Other Machinery, Except Electrical	55	8.66
All Other Business Services	50	7.88
o Bookkeepers	1790	100.00
All Other Wholesale And Retail Trade	235	13.13
All Other Service	225	11.74
Office Computing Machinery	170	9.50
Finance, Insurance And Real Estate	165	9.22
All Other Durable Goods Manufacturing	115	6.43
Nondurable Goods Manufacturing	115	6.14
All Other Construction	110	6.15
Transportation And Public Utilities	85	4.74
Local Government, Except Education And Hospitals	80	4.47
All Other Business Services	75	4.19
All Other Health Services	75	4.19
Misc. Retail Stores	65	3.63
Wholesale Trade-nondurable Goods	60	3.35
General Building Contractors - Residential Buildings	55	3.07
All Other Electrical And Electronic Equipment	55	3.07
o General Office Clerks	1835	100.00
All Other Wholesale And Retail Trade	210	11.45
Local Government, Except Education And Hospitals	200	10.90
All Other Service	150	8.17
Transportation And Public Utilities	135	7.36
All Other Durable Goods Manufacturing	130	7.07
All Other Wholesale Trade-durable Goods	130	7.08
Food Stores	125	6.81
All Other Finance, Insurance And Real Estate	110	6.00
Office Computing Machinery	85	4.63
Elementary And Secondary Schools	80	4.36
Construction	75	4.09
All Other Health Services	75	4.08
Wholesale Trade-nondurable Goods	70	3.82
Personnel Supply Services	70	3.82
Hospitals	70	3.82

**Table B:**  
**Northern Middlesex**  
**Employment in**  
**Selected Occupations**  
**by Industry**

		Employment	Percent Distribution
o	Production, Planning, & Expediting Clerks	530	100.00
	Office Computing Machinery	320	60.38
	All Other Durable Goods Manufacturing	130	24.53
o	Stock Clerks - Stockroom	725	100.00
	Office Computing Machinery	185	25.52
	All Other Wholesale And Retail Trade	165	22.75
	All Other Durable Goods Manufacturing	90	12.42
	Personnel Supply Services	75	10.34
	All Other Wholesale Trade-durable Goods	70	9.65
o	Shipping & Receiving Clerks	625	100.00
	All Other Wholesale And Retail Trade	165	26.40
	Office Computing Machinery	135	21.60
	All Other Durable Goods Manufacturing	110	17.60
	Nondurable Goods Manufacturing	75	10.40
	All Other Wholesale Trade-durable Goods	65	10.40
	Service	55	8.80

#### Service Occupations

o	Security Guards	575	100.00
	Miscellaneous Business Services	310	53.91
	Office Computing Machinery	75	13.04
	Wholesale And Retail Trade	50	8.69
	All Other Service	50	6.96
o	Waiters & Waitresses	1665	100.00
	Eating And Drinking Places	1380	82.88
	All Other Service	220	3.91
o	Food Preparation Workers	790	100.00
	Eating And Drinking Places	300	37.98
	Elementary And Secondary Schools	145	18.36
	Nursing And Personal Care Facilities	140	17.72
	Hospitals	110	13.92
	All Other Service	60	1.26
o	Nursing Aides	1270	100.00
	Nursing And Personal Care Facilities	655	51.58
	Hospitals	365	28.74
	Personnel Supply Services	100	7.87
	Elementary And Secondary Schools	70	5.51
	All Other Health Services	65	5.12
o	Janitors & Cleaners	1185	100.00
	All Other Service	280	21.93
	Elementary And Secondary Schools	275	23.21
	Wholesale And Retail Trade	150	12.67
	Colleges, Universities, Professional Schools, Junior Colleges	100	8.44
	All Other Durable Goods Manufacturing	85	7.17

**Table B:**  
**Northern Middlesex**  
**Employment in**  
**Selected Occupations**  
**by Industry**

	Percent Distribution
Employment	
Office Computing Machinery	70
Finance, Insurance And Real Estate	60
Nursing And Personal Care Facilities	60
Hospitals	55
Nondurable Goods Manufacturing	50
<b>Prod., Construction &amp; Machining Occupations</b>	<b>100.00</b>
o Production Supervisors	755
Office Computing Machinery	275
All Other Durable Goods Manufacturing	185
All Other Nondurable Goods Manufacturing	125
Electronic Components And Accessories	60
Textile Mill Prouducts	60
Medical Instruments And Supplies	50
o Precision & Production Inspectors	1160
Office Computing Machinery	565
All Other Durable Goods Manufacturing	250
Electronic Components And Accessories	100
Medical Instruments And Supplies	100
Textile Mill Prouducts	95
o General Maintenance Repairers	815
Local Government, Except Education And Hospitals	235
Service	180
Finance, Insurance And Real Estate	90
Wholesale And Retail Trade	80
Nondurable Goods Manufacturing	70
Office Computing Machinery	60
All Other Durable Goods Manufacturing	50
o Automotive Mechanics	495
All Other Wholesale And Retail Trade	195
Motor Vehicle Dealers (new And Used)	160
Service	110
o Carpenters	815
General Building Contractors - Residential Buildings	460
All Other Construction	240
Durable Goods Manufacturing	60
o Machinists	530
All Other Machinery, Except Electrical	205
All Other Durable Goods Manufacturing	185
All Other Electrical And Electronic Equipment	50
o Electrical & Electrn Equip Assemblers	530
Office Computing Machinery	330
Electronic Components And Accessories	145
All Other Durable Goods Manufacturing	55

**Table C:**  
**Northern Middlesex**  
**Employment in**  
**Selected Industries**  
**by Occupation**

		Percent Employment	Distribution
<b>Construction Industries</b>			
o	General Building Contractors - Residential Buildings	1215	100.00
	Carpenters	460	37.86
	Constructive Trades, Extractive Worker Helper	125	10.29
	Transportation, Material Moving Machine And Vehicle Operators	95	7.82
	General Managers And Top Executives	85	7.00
	Construction Managers	75	6.17
	All Other Clerical And Administrative Support Workers	70	5.76
	Precision Production Occupations	70	5.76
	Helpers, Laborers And Related	65	5.35
	Bookkeeping, Accounting, Auditing Clerks	55	4.53
	First Line Supervisors - Construction And Related	50	4.11
o	All Other Construction	3845	100.00
	Constructive Trades, Extractive Worker Helper	395	10.28
	Electricians	300	7.81
	Plumbers, Pipefitters And Steamfitters	285	7.42
	All Other Construction And Extractive Occupations	285	7.41
	Carpenters	240	6.24
	Drywall Installers And Tapers	195	5.07
	General Managers And Top Executives	175	4.55
	All Other Helpers, Laborers, Movers - Hand	155	4.03
	Sheet Metal Workers	135	3.51
	First Line Supervisors - Construction And Related	130	3.38
	Secretaries, Stenographers And Typists	120	3.12
	Bookkeeping, Accounting, Auditing Clerks	110	2.86
	Glaziers	110	2.86
	Construction Managers	100	2.60
	Heating, Air Conditioning, Refrigeration Mechs, Installers	90	2.34
	All Other Mechanics, Installers And Repairers	90	2.34
	All Other Material Moving Equipment Operators	90	2.34
	All Other Professional, Paraprofessional And Technicians	80	2.08
	Grading, Dozing And Scraper Operators	80	2.08
	Truck Drivers, Heavy	75	1.95
	Cost Estimators	70	1.82
	Reinforcing Metal Workers	70	1.82
	Sales Reps, Exc Scientific And Related Products Or Services	65	1.69
	Painters, Paperhanglers, Construction And Maintenance	60	1.56
	All Other Managers And Administrators	55	1.43
	General Office Clerk	55	1.43
	All Other Clerical And Administrative Support Workers	55	1.43
	Roofers	55	1.43
	Welders And Cutters	55	1.43
<b>Manufacturing Industries</b>			
o	Office Computing Machinery	15945	100.00
	Electrical And Electronic Engineers	1725	10.82
	Sales Reps, Scientific And Related Products And Services	845	5.30
	Electrical, Electronic Engineering Technicians, Technologists	720	4.52
	Secretaries, Stenographers And Typists	700	4.39
	All Other Management Support Workers	565	3.54
	Precision And Production Inspectors	565	3.54
	Computer Programmers	505	3.17
	All Other Managers And Administrators	495	3.10
	All Other Clerical And Administrative Support Workers	485	3.04
	Engineering, Mathematical And Natural Science Managers	435	2.73
	Systems Analysts, Electronic Data Processing	430	2.70
	All Other Professional, Paraprofessional And Technicians	405	2.54
	First Line Supervisors - Clerical And Administrative Clerks	405	2.54

**Table C:**  
**Northern Middlesex**  
**Employment in**  
**Selected Industries**  
**by Occupation**

		Percent Employment Distribution
	Industrial Production Managers	360 2.26
	All Other Sales And Related Workers	345 2.16
	All Other Engineering Technicians And Technologists	335 2.10
	Electrical And Electronic Equipment Assembler	325 2.04
	Production, Planning, Expediting Clerks	320 2.01
	First Line Supervisors - Production And Related	275 1.73
	Marketing, Advertising And Related Managers	245 1.54
	Financial Managers	235 1.47
	Industrial And Safety Engineers	235 1.47
	Writers And Editors, Including Technical Writers	220 1.38
	First Line Supervisors And Manager/supervisors - Sales And Re	220 1.38
	Accountants And Auditors	200 1.25
	All Other Financial Specialists	190 1.19
	Stock Clerks - Stockroom, Warehouse And Storage Yard	185 1.16
	All Other Engineers	180 1.13
	Helpers, Laborers And Related	180 1.13
	Bookkeeping, Accounting, Auditing Clerks	170 1.07
	General Managers And Top Executives	165 1.04
	Personnel, Training And Labor Relations Specialists	165 1.04
	All Other Machine Operators	165 1.04
	Assemblers, Fabricators - Exc Mach, Electrc, Electrc, Prec	165 1.04
	Computer Operators, Except Peripheral Equipment	150 0.94
	First Line Supervisors - Mechanics And Repairers	150 0.94
	Data Processing Equipment Repairers	150 0.94
	Electrical And Electronic Assemblers	150 0.94
	Traffic, Shipping And Receiving Clerks	135 0.85
	All Other Mechanics, Installers And Repairers	135 0.85
	Purchasing Agents - Exc Wholesale, Retail & Farm Products	130 0.82
	Personnel, Training And Labor Relation Managers	125 0.78
	Mechanical Engineers	120 0.75
	Sales Engineers	105 0.66
	Drafters	100 0.63
	Administrative Service Managers	90 0.56
	General Office Clerk	85 0.53
	All Other Metal And Plastic Machine Operators And Tenders	85 0.53
	Data Entry Keyers, Except Composing	75 0.47
	Guards And Watch Guards	75 0.47
	All Other Precision Metal Assemblers	75 0.47
	All Other Hand Workers	75 0.47
	Transportation, Material Moving Machine And Vehicle Operators	75 0.47
	Budget Analysts	70 0.44
	Janitors And Cleaners	70 0.44
	Sales Reps, Exc Scientific And Related Products Or Services	65 0.41
	Mechanical Engineering Technicians And Technologists	60 0.38
	Personnel Clerks, Except Payroll And Timekeeping	55 0.35
	Maintenance Repairers, General Utility	55 0.34
	Construction Trades, Extractive Occupations, Exc Mat Moving	55 0.34
	Sheet Metal Workers	55 0.34
	All Other Precision Metal Workers	55 0.34
	Soldierers And Brazers	55 0.34
	All Other Service Workers	50 0.31
	All Other Precision Workers	50 0.31
o	All Other Machinery, Except Electrical	1415 100.00
	Machinists	185 13.08
	All Other Clerical And Administrative Support Workers	155 10.95
	Hand Working Occupations, Including Assemblers, Fabricators	155 10.95
	All Other Metal, Plastic Machine Setters, Set-up Operators	115 8.13
	All Other Professional, Paraprofessional And Technicians	110 7.77
	All Other Managers And Administrators	95 6.71
	All Other Metal And Plastic Machine Operators And Tenders	85 6.01

**Table C:**  
**Northern Middlesex**  
**Employment in**  
**Selected Industries**  
**by Occupation**

		Percent Employment Distribution
All Other Precision Workers	80	5.65
Lathe, Turning Mach Tool Setters, Set-up Operators, Metal, Pl	75	5.30
General Managers And Top Executives	60	4.24
All Other Precision Metal Workers	60	4.24
Engineers	55	3.89
First Line Supervisors, Manager/supers - Prod, Constr, Maint	55	3.89
Material Recording, Scheduling, Dispatching, Distributing	50	3.53
o Electronic Components And Accessories	1955	100.00
Electrical And Electronic Engineers	150	7.67
All Other Clerical And Administrative Support Workers	150	7.67
Electrical And Electronic Equipment Assembler	145	7.42
All Other Managers And Administrators	115	5.88
Management Support Occupations	115	5.88
Precision And Production Inspectors	100	5.12
All Other Engineers	95	4.86
All Other Hand Workers	90	4.60
All Other Metal And Plastic Machine Operators And Tenders	75	3.84
Electrical And Electronic Assemblers	75	3.84
Electrical, Electronic Engineering Technicians, Technologists	70	3.58
Engineering, Mathematical And Natural Science Managers	65	3.32
All Other Engineering Technicians And Technologists	65	3.32
Sales And Related Occupations	65	3.33
Industrial Production Managers	60	3.07
First Line Supervisors - Production And Related	60	3.07
All Other Metal, Plastic Machine Setters, Set-up Operators	60	3.07
Electromechanical Equipment Assemblers - Prec	60	3.07
Material Recording, Scheduling, Dispatching, Distributing	55	2.81
Precision Metal Workers	50	2.56
Assemblers, Fabricators - Exc Mach, Electrcl, Electrnc, Prec	50	2.56
o All Other Electrical And Electronic Equipment	1195	100.00
Electrical And Electronic Assemblers	525	43.93
Clerical And Administrative Support Occupations	135	11.30
Precision Production Occupations	115	9.62
All Other Hand Workers	100	8.37
Managerial And Administrative Occupations	90	7.53
All Other Professional, Paraprofessional And Technicians	70	5.86
Engineering And Related Technicians And Technologists	55	4.60
o Medical Instruments And Supplies	2030	100.00
Assemblers, Fabricators - Exc Mach, Electrcl, Electrnc, Prec	590	29.06
All Other Clerical And Administrative Support Workers	160	7.88
Sales Reps, Scientific And Related Products And Services	150	7.39
Engineering And Related Technicians And Technologists	110	5.42
All Other Managers And Administrators	105	5.17
Precision And Production Inspectors	100	4.93
Solderers And Brazers	95	4.68
Mechanical Engineers	90	4.43
Secretaries, Stenographers And Typists	80	3.94
Machine Setters, Set-up Operators, Operators And Tenders	75	3.70
All Other Professional, Paraprofessional And Technicians	65	3.20
Precision Production Occupations	65	3.20
Machine Feeders And Offbearers	65	3.20
All Other Helpers, Laborers, Movers - Hand	65	3.20
Management Support Occupations	55	2.71
Marketing, Advertising And Related Managers	50	2.46
First Line Supervisors - Production And Related	50	2.46

**Table C:**  
**Northern Middlesex**  
**Employment in**  
**Selected Industries**  
**by Occupation**

		Percent Employment Distribution
o	All Other Durable Goods Manufacturing	6110 100.00
	Mechanical Engineers	490 8.02
	All Other Professional, Paraprofessional And Technicians	435 7.12
	Electrical And Electronic Engineers	285 4.67
	All Other Management Support Workers	270 4.42
	Assemblers, Fabricators - Exc Mach, Electrcal, Electrnc, Prec	230 3.76
	Secretaries, Stenographers And Typists	225 3.68
	All Other Machine Operators	225 3.68
	General Managers And Top Executives	175 2.86
	Precision And Production Inspectors	175 2.86
	Machinists	175 2.86
	All Other Managers And Administrators	155 2.54
	Accountants, Auditors And Other Financial Specialists	155 2.54
	Industrial Production Managers	145 2.37
	All Other Clerical And Administrative Support Workers	145 2.37
	Helpers, Laborers And Related	140 2.29
	Electromechanical Equipment Assemblers - Prec	120 1.96
	First Line Supervisors - Production And Related	105 1.72
	Mechanics, Installers And Repairers	105 1.72
	Extruding, Drawing Machine Setters, Set-up Ops, Metal And Pla	105 1.72
	All Other Metal, Plastic Machine Setters, Set-up Operators	105 1.72
	Grinding, Lapping, Buffing Machine Tool Setters, Set-up Ops	100 1.64
	Sales And Related Occupations	95 1.56
	Precision Foundry Mold And Core Makers	95 1.56
	Metal Molding, Coremaking, Casting Mach Setters, Set-up Ops	95 1.56
	Woodworking Machine Operators And Tenders, Except Sawing	95 1.56
	All Other Hand Workers	95 1.56
	Sheetmetal Machine Operator	90 1.47
	All Other Metal And Plastic Machine Operators And Tenders	90 1.47
	Purchasing Agents - Exc Wholesale, Retail & Farm Products	85 1.39
	Aeronautical And Astronautical Engineers	85 1.39
	General Office Clerk	85 1.39
	All Other Precision Woodworkers	85 1.39
	Production, Planning, Expediting Clerks	75 1.23
	Bookkeeping, Accounting, Auditing Clerks	70 1.15
	Truck Drivers, Heavy	70 1.15
	Electrical, Electronic Engineering Technicians, Technologists	65 1.06
	Mechanical Engineering Technicians And Technologists	65 1.06
	Electronic Data Processing, Other Office Machine Occupations	65 1.06
	Construction Trades, Extractive Occupations, Exc Mat Moving	65 1.06
	All Other Precision Metal Workers	65 1.06
	Janitors And Cleaners	60 0.98
	All Other Precision Metal Assemblers	60 0.98
	Drafters	55 0.90
	All Other Precision Workers	55 0.90
	Financial Managers	50 0.82
	Systems Analysis, Electronic Data Processing	50 0.82
	Stock Clerks - Stockroom, Warehouse And Storage Yard	50 0.82
	Traffic, Shipping And Receiving Clerks	50 0.82
	All Other Service Workers	50 0.82
o	Textile Mill Products	1535 100.00
	Textile Machine Ops, Tenders - Winding, Twisting, Knitting	360 23.45
	Helpers, Laborers And Related	190 12.38
	All Other Machine Operators	175 11.40
	All Other Clerical And Administrative Support Workers	115 7.49
	Mechanics, Installers And Repairers	110 7.17
	Precision And Production Inspectors	95 6.19
	Textile Machine Setters And Set-up Operators	85 5.54
	Managerial And Administrative Occupations	65 4.23

**Table C:**  
**Northern Middlesex**  
**Employment in**  
**Selected Industries**  
**by Occupation**

		Percent Employment	Distribution
	Professional, Paraprofessional And Technical Occupations	65	4.23
	First Line Supervisors - Production And Related	60	3.91
	Transportation, Material Moving Machine And Vehicle Operators	60	3.91
	Material Recording, Scheduling, Dispatching, Distributing	55	3.58
	Precision Production Occupations	50	3.26
o	<b>Printing And Publishing</b>	<b>1850</b>	<b>100.00</b>
	All Other Clerical And Administrative Support Workers	240	12.97
	All Other Professional, Paraprofessional And Technicians	225	12.16
	Writers And Editors, Including Technical Writers	145	7.84
	All Other Managers And Administrators	115	6.22
	All Other Printing, Binding, Related Machine Ops And Tenders	115	6.22
	All Other Machine Operators	105	5.68
	Other Precision Workers	85	4.60
	Secretaries, Stenographers And Typists	80	4.33
	Sales Reps, Exc Scientific And Related Products Or Services	75	4.06
	Driver/sales Workers	75	4.06
	General Managers And Top Executives	65	3.51
	Material Recording, Scheduling, Dispatching, Distributing	65	3.51
	Hand Working Occupations, Including Assemblers, Fabricators	65	3.51
	Sales Agents, Advertising	60	3.24
	All Other Printing Press Setters And Set-up Operators	60	3.24
	All Other Material Moving Equipment Operators	60	3.24
	Precision Printing Workers	55	2.97
	Electronic Data Processing, Other Office Machine Occupations	50	2.70
o	<b>All Other Nondurable Goods Manufacturing</b>	<b>3060</b>	<b>100.00</b>
	All Other Machine Operators	400	13.07
	Precision Production Occupations	260	8.50
	Professional, Paraprofessional And Technical Occupations	255	8.33
	All Other Clerical And Administrative Support Workers	235	7.68
	All Other Helpers, Laborers, Movers - Hand	185	6.05
	Packaging And Filling Machine Operators	180	5.88
	Sewing Machine Operators, Garment	175	5.72
	All Other Hand Workers	155	5.07
	All Other Managers And Administrators	150	4.90
	Plastic Molding, Casting Machine Operators And Tenders	140	4.58
	Sales And Related Occupations	125	4.08
	Machine Feeders And Offbearers	120	3.92
	All Other Transportation And Related Workers	85	2.78
	Assemblers, Fabricators - Exc Mach, Electrc, Electrnc, Prec	75	2.45
	Material Moving Equipment Operators	70	2.29
	Paper Goods Machine Setters And Set-up Operators	65	2.12
	General Managers And Top Executives	60	1.96
	Service Occupations	60	1.96
	First Line Supervisors - Production And Related	55	1.80
	All Other Metal And Plastic Machine Operators And Tenders	55	1.80
	All Other Printing, Binding, Related Machine Ops And Tenders	55	1.80
	Material Recording, Scheduling, Dispatching, Distributing	50	1.63
	Machinery Maintenance Mechanics	50	1.63
o	<b>Trucking, Local And Long Distance</b>	<b>1335</b>	<b>100.00</b>
	Truck Drivers, Heavy	410	30.71
	Truck Drivers, Light - Including Delivery And Route Drivers	240	17.98
	Helpers, Laborers And Related	235	17.60
	Clerical And Administrative Support Occupations	180	13.48
	Mechanics, Installers And Repairers	60	4.49
	All Other Material Moving Equipment Operators	55	4.12
	Managerial And Administrative Occupations	50	3.75

**Table C:**  
**Northern Middlesex**  
**Employment in**  
**Selected Industries**  
**by Occupation**

		Percent Employment Distribution
Transportation, Communications & Utilities		
	o All Other Transportation And Public Utilities	2200 100.00
	All Other Clerical And Administrative Support Workers	245 11.14
	All Other Professional, Paraprofessional And Technicians	165 7.50
	All Other Mechanics, Installers And Repairers	160 7.27
	Bus Drivers, School	155 7.05
	First Line Supervisors - Clerical And Administrative Clerks	145 6.59
	Truck Drivers, Heavy	145 6.59
	Taxi Drivers And Chauffeurs	125 5.68
	Material Recording, Scheduling, Dispatching, Distributing	110 5.00
	Managerial And Administrative Occupations	100 4.55
	General Office Clerk	100 4.55
	Precision Production Occupations	85 3.86
	All Other Sales Representatives, Service	75 3.41
	Bus Drivers	75 3.41
	Emergency Medical Technicians	70 3.18
	Travel Agents	70 3.18
	All Other Electric, Electronic Equip Mechs, Reptrs, Instllrs	70 3.18
	Station Installers And Repairers, Telephone	65 2.96
	Customer Service Representative, Utilities	55 2.50
	Helpers, Laborers And Related	55 2.50
	Service Occupations	45 2.05
	o Machinery, Equipment And Supplies	1520 100.00
	Sales Reps, Exc Scientific And Related Products Or Services	195 12.83
	All Other Clerical And Administrative Support Workers	175 11.51
	Sales Reps, Scientific And Related Products And Services	165 10.86
	All Other Mechanics, Installers And Repairers	120 7.89
	General Managers And Top Executives	105 6.91
	Data Processing Equipment Repairers	105 6.91
	Material Recording, Scheduling, Dispatching, Distributing	90 5.92
	Precision Production Occupations	85 5.59
	Secretaries, Stenographers And Typists	75 4.93
	Electrical, Electronic Engineering Technicians, Technologists	65 4.28
	All Other Transportation Workers	60 3.95
	Salespersons, Retail Trade	55 3.62
	First Line Supervisors And Manager/supervisors - Sales And Re	50 3.29
	Bookkeeping, Accounting, Auditing Clerks	50 3.29
Wholesale & Retail Trade	o All Other Wholesale Trade-durable Goods	1740 100.00
	Helpers, Laborers And Related	210 12.07
	Sales Reps, Exc Scientific And Related Products Or Services	135 7.76
	General Managers And Top Executives	130 7.47
	Truck Drivers, Light - Including Delivery And Route Drivers	120 6.90
	Material Recording, Scheduling, Dispatching, Distributing	105 6.03
	All Other Material Moving Equipment Operators	95 5.46
	Mechanics, Installers And Repairers	90 5.17
	Sales Reps, Scientific And Related Products And Services	85 4.89
	General Office Clerk	85 4.89
	Secretaries, Stenographers And Typists	80 4.60
	Professional, Paraprofessional And Technical Occupations	75 4.31
	All Other Sales And Related Workers	75 4.31
	Precision Production Occupations	75 4.31
	First Line Supervisors And Manager/supervisors - Sales And Re	70 4.02
	Salespersons, Parts	65 3.74

**Table C:**  
**Northern Middlesex**  
**Employment in**  
**Selected Industries**  
**by Occupation**

		Percent Employment Distribution
	All Other Clerical And Administrative Support Workers	65 3.74
	First Line Supervisors - Clerical And Administrative Clerks	55 3.16
	Bookkeeping, Accounting, Auditing Clerks	50 2.87
o	Wholesale Trade-nondurable Goods	1150 100.00
	Sales Reps, Exc Scientific And Related Products Or Services	190 16.52
	All Other Clerical And Administrative Support Workers	135 11.74
	Material Recording, Scheduling, Dispatching, Distributing	110 9.56
	General Managers And Top Executives	75 6.52
	All Other Sales And Related Workers	75 6.52
	Truck Drivers, Light - Including Delivery And Route Drivers	75 6.52
	General Office Clerk	70 6.09
	Truck Drivers, Heavy	65 5.65
	Bookkeeping, Accounting, Auditing Clerks	60 5.22
	Helpers, Laborers And Related	60 5.22
	Salespersons, Retail Trade	55 4.78
	Precision Production Occupations	50 4.35
	All Other Material Moving Equipment Operators	50 4.35
o	Department Stores	1240 100.00
	Salespersons, Retail Trade	535 43.15
	Cashiers	155 12.50
	All Other Clerical And Administrative Support Workers	135 10.89
	Managerial And Administrative Occupations	100 8.07
	Stock Clerks, Sales Floor	70 5.65
	Material Recording, Scheduling, Dispatching, Distributing	55 4.43
	All Other Sales And Related Workers	50 4.03
	Service Occupations	50 4.03
	Mechanics, Installers And Repairers	50 4.03
o	Food Stores	4605 100.00
	Cashiers	1340 29.10
	Stock Clerks, Sales Floor	1270 27.58
	All Other Sales And Related Workers	505 10.97
	First Line Supervisors And Manager/supervisors - Sales And Re	290 6.30
	All Other Food Service Workers	265 5.75
	Butchers And Meat Cutters	135 2.93
	General Office Clerk	125 2.71
	General Managers And Top Executives	120 2.60
	Salespersons, Retail Trade	115 2.50
	All Other Managers And Administrators	95 2.06
	All Other Clerical And Administrative Support Workers	75 1.63
	Material Recording, Scheduling, Dispatching, Distributing	70 1.52
	Hand Packers And Packagers	70 1.52
	Management Support Occupations	50 1.08
o	Motor Vehicle Dealers (new And Used)	1100 100.00
	Clerical And Administrative Support Occupations	250 22.73
	Salespersons, Retail Trade	210 19.09
	Helpers, Laborers And Related	175 15.91
	Automotive Mechanics	155 14.09
	First Line Supervisors And Manager/supervisors - Sales And Re	80 7.27
	Automotive Body And Related Repairers	65 5.91
	All Other Sales And Related Workers	55 5.00

**Table C:**  
**Northern Middlesex**  
**Employment in**  
**Selected Industries**  
**by Occupation**

		Percent Employment Distribution
o	Eating And Drinking Places	4895 100.00
	Waiters And Waitresses	1380 28.19
	All Other Food Service Workers	615 12.57
	Cashiers	355 7.25
	Cooks, Speciality Fast Food And Fast Food	345 7.05
	Cooks, Restaurant	330 6.74
	Bartenders	310 6.33
	Food Preparation Workers	300 6.13
	Dining Room, Counter And Cafe Attendants	275 5.62
	General Managers And Top Executives	200 4.09
	Hosts And Hostesses	140 2.86
	Food Service And Lodging Managers	130 2.66
	Clerical And Administrative Support Occupations	130 2.66
	First Line Supervisors - Service	80 1.63
	Driver/sales Workers	80 1.63
	All Other Service Workers	70 1.43
	Professional, Paraprofessional And Technical Occupations	50 1.02
	All Other Sales And Related Workers	50 1.02
o	Misc. Retail Stores	2110 100.00
	Salespersons, Retail Trade	470 22.28
	Cashiers	460 21.80
	Stock Clerks, Sales Floor	320 15.17
	General Managers And Top Executives	155 7.35
	Pharmacists	100 4.74
	All Other Clerical And Administrative Support Workers	90 4.26
	First Line Supervisors And Manager/supervisors - Sales And Re	75 3.55
	Mechanics, Installers And Repairers	75 3.55
	All Other Professional, Paraprofessional And Technicians	65 3.08
	Bookkeeping, Accounting, Auditing Clerks	65 3.08
	Precision Production Occupations	55 2.61
	All Other Transportation Workers	55 2.61
	Service Occupations	50 2.37
o	Commercial And Stock Savings Banks	1030 100.00
	Tellers	365 35.44
	All Other Clerical And Administrative Support Workers	210 20.39
	Financial Managers	95 9.22
	New Accounts Clerks	75 7.28
	Loan Officers And Counselors	70 6.80
	All Other Managers And Administrators	55 5.34
	First Line Supervisors - Clerical And Administrative Clerks	55 5.34
	General Office Clerk	55 5.34
	All Other Professional, Paraprofessional And Technicians	40 3.88
o	All Other Finance, Insurance And Real Estate	2830 100.00
	Tellers	365 12.90
	All Other Clerical And Administrative Support Workers	325 11.48
	General Managers And Top Executives	190 6.71
	Secretaries, Stenographers And Typists	170 6.01
	Financial Managers	160 5.65
	First Line Supervisors - Clerical And Administrative Clerks	150 5.30
	Bookkeeping, Accounting, Auditing Clerks	135 4.77
	Sales Agents And Placers, Insurance	125 4.42
	General Office Clerk	110 3.89

**Table C:**  
**Northern Middlesex**  
**Employment in**  
**Selected Industries**  
**by Occupation**

		Percent Employment Distribution
<b>Finance, Insurance &amp; Real Estate</b>		
	All Other Financial Specialists	95 3.36
	Insurance Policy Processing Clerks	95 3.36
	All Other Professional, Paraprofessional And Technicians	90 3.18
	Maintenance Repairers, General Utility	85 3.00
	Loan Officers And Counselors	80 2.83
	All Other Sales Representatives, Service	80 2.83
	Loan And Credit Clerks	80 2.83
	Receptionists And Information Clerks	80 2.83
	Property And Real Estate Managers And Administrators	70 2.47
	Underwriters	70 2.47
	All Other Managers And Administrators	65 2.30
	All Other Sales And Related Workers	55 1.94
	Janitors And Cleaners	55 1.94
o Computer And Data Processing Services		2295 100.00
	Electrical And Electronic Engineers	455 19.83
	Computer Programmers	250 10.89
	All Other Clerical And Administrative Support Workers	235 10.24
	Systems Analysts, Electronic Data Processing	210 9.15
	Engineering, Mathematical And Natural Science Managers	145 6.32
	All Other Managers And Administrators	120 5.23
	Secretaries, Stenographers And Typists	110 4.79
	All Other Sales And Related Workers	80 3.49
	General Managers And Top Executives	75 3.27
	Computer Operators, Except Peripheral Equipment	75 3.27
	Management Support Occupations	70 3.05
	All Other Mathematical Scientists	70 3.05
	Sales Reps, Scientific And Related Products And Services	70 3.05
	All Other Engineers	65 2.83
	Writers And Editors, Including Technical Writers	60 2.61
	Engineering And Related Technicians And Technologists	50 2.18
	Economists, Including Market Research Analysts	50 2.18
o Miscellaneous Business Services		1450 100.00
Service Industries		
	Guards And Watch Guards	310 21.38
	All Other Clerical And Administrative Support Workers	160 11.03
	Engineers	145 10.00
	All Other Professional, Paraprofessional And Technicians	140 9.66
	All Other Managers And Administrators	90 6.21
	General Managers And Top Executives	80 5.52
	Secretaries, Stenographers And Typists	80 5.52
	Interview Clerks, Except Personnel And Welfare	75 5.17
	Counter And Rental Clerks	70 4.83
	Management Support Occupations	65 4.48
	Physical Scientists	65 4.48
	Data Entry Keyers, Except Composing	55 3.79
o Nursing And Personal Care Facilities		1605 100.00
	Nurse Aides, Orderlies And Attendants	655 40.81
	Food Preparation Workers	140 8.72
	Licensed Practical Nurses	135 8.41
	Registered Nurses	130 8.10
	All Other Food Service Workers	80 4.98
	Janitors And Cleaners, Including Housekeepers And Maids	75 4.67
	Clerical And Administrative Support Occupations	65 4.05
	Janitors And Cleaners	60 3.74
	All Other Professional, Paraprofessional And Technicians	55 3.43

**Table C:**  
**Northern Middlesex**  
**Employment in**  
**Selected Industries**  
**by Occupation**

		Percent Employment	Distribution
	All Other Service Workers	55	3.43
	All Other Health Professionals And Others	50	3.12
o	Hospitals	3705	100.00
	Registered Nurses	815	22.00
	All Other Clerical And Administrative Support Workers	380	10.26
	Nurse Aides, Orderlies And Attendants	365	9.85
	Licensed Practical Nurses	300	8.10
	All Other Health Professionals And Others	200	5.40
	Janitors And Cleaners, Including Housekeepers And Maids	160	4.32
	All Other Professional, Paraprofessional And Technicians	145	3.91
	All Other Food Service Workers	135	3.64
	Therapists	115	3.10
	Medical And Clinical Laboratory Technologists And Technicians	115	3.10
	Food Preparation Workers	110	2.97
	All Other Managers And Administrators	105	2.83
	Psychiatric Aides	100	2.70
	Secretaries, Stenographers And Typists	90	2.43
	All Other Health Servicers	90	2.43
	Precision Production Occupations	90	2.43
	General Office Clerk	70	1.89
	Radiologic Technicians	65	1.75
	All Other Service Workers	65	1.75
	Janitors And Cleaners	55	1.48
	Medical And Health Service Managers	50	1.35
o	All Other Health Services	2200	100.00
	Registered Nurses	240	10.91
	All Other Clerical And Administrative Support Workers	205	9.32
	Home Health Aides	205	9.32
	Dental Assistants	185	8.41
	Medical Secretaries	165	7.50
	All Other Health Professionals And Others	155	7.05
	Physicians And Surgeons	150	6.82
	Dental Hygienists	135	6.14
	Receptionists And Information Clerks	115	5.23
	Dentists	110	5.00
	Managerial And Administrative Occupations	100	4.55
	Radiologic Technicians	80	3.64
	All Other Professional, Paraprofessional And Technicians	75	3.41
	General Office Clerk	65	2.95
	Nurse Aides, Orderlies And Attendants	65	2.95
	All Other Health Servicers	65	2.95
o	Elementary And Secondary Schools	5020	100.00
	Teachers, Secondary School	1145	22.81
	Teachers, Elementary	700	13.94
	All Other Teachers And Related Workers	290	5.78
	Janitors And Cleaners	275	5.48
	Teachers, Special Education	240	4.78
	Teacher Aides, Paraprofessional	210	4.18
	College And University Faculty	190	3.78
	Education Administrators	180	3.59
	All Other Professional, Paraprofessional And Technicians	175	3.49
	All Other Health Professionals And Others	145	2.89
	Food Preparation Workers	145	2.89
	Cooks, Institution Or Cafe	140	2.79
	Secretaries, Stenographers And Typists	130	2.59

**Table C:**  
**Northern Middlesex**  
**Employment in**  
**Selected Industries**  
**by Occupation**

		Percent Employment	Distribution
	Teachers And Instructors, Vocational Education	115	2.29
	Teacher Aides And Education Assistants	105	2.09
	Vocational And Educational Counselors	100	1.99
	All Other Clerical And Administrative Support Workers	95	1.89
	General Office Clerk	80	1.59
	Teachers, Preschool And Kindergarten	70	1.39
	Nurse Aides, Orderlies And Attendants	70	1.39
	Precision Production Occupations	60	1.19
	Instructors And Coaches, Sports	55	1.10
	All Other Transportation Workers	55	1.10
	Registered Nurses	50	1.00
	Protective Service Occupations	50	1.00
	All Other Food Service Workers	50	1.00
	All Other Service Workers	50	1.00
o	Colleges, Universities, Professional Schools, Junior Colleges	1485	100.00
	College And University Faculty	555	37.38
	Other Teachers And Instructors	320	21.55
	All Other Clerical And Administrative Support Workers	135	9.09
	Janitors And Cleaners	100	6.74
	Education Administrators	85	5.72
	Secretaries, Stenographers And Typists	85	5.72
	All Other Professional, Paraprofessional And Technicians	70	4.71
	Typists And Word Processors	65	4.38
o	Social Services	1110	100.00
	Teachers, Preschool And Kindergarten	170	15.32
	All Other Service Workers	125	11.26
	All Other Clerical And Administrative Support Workers	115	10.36
	Social Service Technicians	105	9.46
	Teacher Aides And Education Assistants	95	8.56
	Social Workers, Medical And Non-medical	90	8.11
	All Other Managers And Administrators	75	6.76
	Health Practitioners, Technologists, Technicians And Related	70	6.31
	Home Health Aides	70	6.31
	All Other Professional, Paraprofessional And Technicians	55	4.95
	Child Care Workers	55	4.95
	General Managers And Top Executives	50	4.50
o	State Government, Except Education And Hospitals	250	100.00
	Helpers, Laborers And Related	55	22.00
	Sales And Related Occupations	45	18.00
o	Local Government, Except Education And Hospitals	3070	100.00
	Police Detectives And Investigators	365	11.89
	Fire Fighters	355	11.56
	Maintenance Repairers, General Utility	235	7.66
	Administrative Service Managers	230	7.49
	General Office Clerk	200	6.51
	All Other Professional, Paraprofessional And Technicians	195	6.35
	All Other Clerical And Administrative Support Workers	160	5.21
	Highway Maintenance Workers	125	4.07
	Library Assistants And Bookmobile Drivers	115	3.75
	Helpers, Laborers And Related	115	3.75
	All Other Service Workers	105	3.42
	Secretaries, Stenographers And Typists	100	3.26
	Water And Liquid Waste Treatment Plant And System Operators	95	3.09
	Pub Admin Chief Executives, Legislators, General Administrators	90	2.93

**Table C:**  
**Northern Middlesex**  
**Employment in**  
**Selected Industries**  
**by Occupation**

	Percent Employment	Distribution
All Other Managers And Administrators	90	2.93
Bookkeeping, Accounting, Auditing Clerks	80	2.61
Assessors	75	2.44
All Other Management Support Workers	65	2.12
Agricultural, Forestry, Fishing And Related Occupations	65	2.12
All Other Construction And Extractive Occupations	65	2.12
Fire Fighting And Prevention Supervisors	60	1.95
Construction And Building Inspectors	50	1.63

# Notes About the Data

Employment surveys frequently differ in concept and definition and thus make understanding and interpreting the data more difficult. Therefore, it is important to know how data are obtained in order to know how best to use them. The industry and occupational employment data presented in these SDA reports count jobs and are collected from surveys of Massachusetts establishments. Individuals who hold more than one job are counted at each place they work. This section presents more detail explanations of the data published in the tables.

## Industry Employment Data

Industry employment data presented in Tables 2, 3, and C, and the top ten industries in Section II are derived from the Employment and Wage Program. Industries covered in this program are defined in terms of the Standard Industrial Classification (SIC) system. The SIC separates establishments' economic activities into broad sectors (manufacturing, construction, retail trade, services, etc.). Each sector is further divided into major groups (2 digit SIC), then into industry groups (3 digit SIC) and finally into industries (4 digit SIC). Revisions to the SIC are made periodically to reflect the economy's changing industrial structure. In 1987, the SIC was revised, taking into account technological changes; institutional changes

such as deregulation in the banking, communications, and transportation industries; and the tremendous expansion in the service sector that occurred since 1972.

Some of the industry employment tables presented in these SDA reports are based on the old 1972 SIC, while others are based on the 1987 SIC revision. Industry employment data in Table 3 and the top ten industries are based on 1989 data and the 1987 SIC revision. Data from 1984 to 1989, showing the average annual employment change, net change and percent change in Table 2 are based on both the 1972 SIC and 1977 supplement, and the 1987 SIC revision. Data from 1984-1987 and 1988-1989 are based on different SICs and therefore, are not strictly comparable. However, since there were no changes to the SIC at the sector level, these measures of the SDA's industry employment change present no significant comparability problems.

Table C, presenting detailed industry employment by occupation, is derived from the Occupational Employment Statistics Survey. Industry employment is based on 1987 data and the 1972 SIC and the 1977 supplement. Staffing patterns presented in Table C are published for approximately 25 industries with a thousand or more workers.

Industry staffing patterns are presented for 2 and 3 digit industries, and major groupings of industries such as durable and nondurable goods industries. Industry staffing patterns that could violate employer confidentiality are collapsed into residual industries within the sector. As a result not all residual industries are strictly comparable across all SDAs.

## Occupational Employment Data

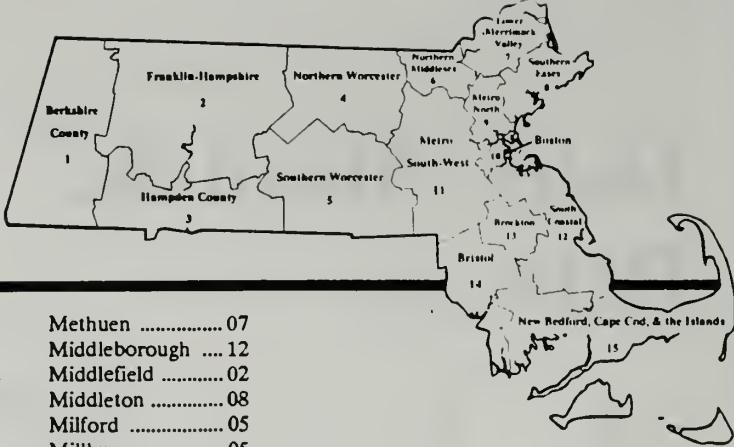
Occupational employment estimates presented in these SDA reports are derived from data collected by the Occupational Employment Statistic (OES) program. OES data are obtained from surveys of employment by occupation for over 300 industries. Employers include both part-time and full-time workers for the payroll periods on the 12th of April, May, and June.

The classification systems used in this survey were the Standard Occupational Classification (SOC) system and the 1972 SIC. The SOC was used to develop the definitions of the occupations included and the 1972 SIC was used to define the industries.

Occupational data in these SDA reports are not strictly comparable to those published in the Current Population Survey (CPS), a monthly survey of approximately 59,500 individuals conducted by the U.S. Bureau of the Census. Primarily because of the two surveys' differences in concepts and classification systems (for example, the CPS counts individuals whereas the OES survey is a count of jobs, therefore, individuals who hold more than one job are counted differently in the two surveys,) employment comparisons should not be made between the two.

Comparisons can be made for large occupations among the SDAs and between individual SDAs and the state. In general, however, it is important to remember that the occupational estimates published in this report are intended to be used as a guide to local job markets, and should not be viewed as precise estimates.

# Appendix Cities & Towns In Massachusetts Service Delivery Areas



A		Clarksburg .....	01	Hampden .....	03	Methuen .....	07		
Abington .....	13	Clinton .....	04	Hancock .....	01	Middleborough ...	12		
Action .....	11	Cohasset .....	12	Hanover .....	12	Middlefield .....	02		
Acushnet .....	15	Colrain .....	02	Hanson .....	13	Middleton .....	08		
Adams .....	01	Concord .....	11	Hardwick.....	05	Milford .....	05		
Agawam .....	03	Conway .....	02	Harvard .....	04	Millbury .....	05		
Alford .....	01	Cummington .....	02	Harwich.....	15	Millis .....	11		
Amesbury .....	07			Hatfield .....	02	Milville .....	05		
Amherst .....	02	D		Haverhill .....	07	Milton .....	12		
Andover .....	07	Dalton .....	01	Hawley .....	02	Monroe .....	02		
Arlington .....	09	Danvers .....	08	Heath .....	02	Monson .....	03		
Ashburnham .....	04	Dartmouth .....	15	Hingham .....	12	Montague .....	02		
Ashby .....	04	Dedham .....	11	Hinsdale .....	01	Monterey .....	01		
Ashfield .....	02	Deerfield.....	02	Holbrook .....	12	Montgomery .....	03		
Ashland .....	11	Dennis .....	15	Holden .....	05	Mt. Washington ...	01		
Athol .....	02	Dighton .....	14	Holland .....	03				
Attleboro .....	14	Douglas .....	05	Holliston .....	11	N			
Auburn .....	05	Dover .....	11	Holyoke .....	03	Nahant .....	08		
Avon .....	13	Dracut .....	06	Hopedale .....	05	Nantucket .....	15		
Ayer .....	04	Dudley .....	05	Hopkinton .....	11	Natick .....	11		
B		Dunstable .....	06	Hubbardston .....	04	Needham .....	11		
Barnstable .....	15	Duxbury .....	12	Hudson .....	11	New Ashford .....	01		
Barre .....	04			Hull .....	12	New Bedford .....	15		
Becket .....	01	E		Huntington .....	02	New Braintree .....	05		
Bedford .....	11	East Bridgewater ..	13	I & K		New Marlborough	01		
Belchertown .....	02	East Brookfield ...	05	Ipswich .....	08	New Salem .....	02		
Bellingham .....	11	East Longmeadow	03	Kingston .....	12	Newbury .....	07	S	
Belmont .....	09	Eastham .....	15	L		Newburyport .....	07	Salem .....	08
Berkley .....	14	Easthampton .....	02	Lakeville .....	15	Newton .....	11	Salisbury .....	07
Berlin .....	04	Easton .....	13	Lancaster .....	04	North Adams .....	01	Sandisfield .....	01
Bernardston .....	02	Edgartown .....	15	Lanesborough .....	01	North Andover .....	07	Sandwich .....	15
Beverly .....	08	Egremont .....	01	Lawrence .....	07	North Attleborough	14	Saugus .....	08
Erving .....	02	Essex .....	08	Lee .....	01	North Brookfield ..	05	Savoy .....	01
Billerica .....	06	Everett .....	09	Leicester .....	05	North Reading .....	09	Scituate .....	12
Blackstone .....	05	F		Lenox .....	01	Northampton .....	02	Seekonk .....	14
Blandford .....	03	Fairhaven .....	15	Leominster .....	04	Northborough .....	05	Sharon .....	11
Bolton .....	04	Fall River .....	14	Leverett .....	02	Northbridge .....	05	Sheffield .....	01
Boston .....	10	Falmouth .....	15	Lexington .....	11	Northfield .....	02	Shelburne .....	02
Bourne .....	15	Fitchburg .....	04	Leydon .....	02	Norton .....	14	Sherborn .....	11
Boxborough .....	11	Florida.....	01	Lincoln .....	11	Norwell .....	12	Shirley .....	04
Boxford .....	07	Foxborough .....	11	Littleton .....	11	Norwood .....	11	Shrewsbury .....	05
Boylston .....	05	Framingham .....	11	Longmeadow .....	03	O		Shutesbury .....	02
Braintree .....	12	Franklin .....	11	Lowell .....	06	Oak Bluffs .....	15	Somerset .....	14
Brewster .....	15	Freetown .....	15	Ludlow .....	03	Oakham .....	05	Somerville .....	09
Bridgewater .....	13	G		Lunenburg .....	04	Orange .....	02	South Hadley .....	02
Brimfield .....	03	Gardner .....	04	Lynn .....	08	Orleans .....	15	Southampton .....	02
Brockton .....	13	Gay Head .....	15	Lynfield .....	08	Otis .....	01	Southborough .....	11
Brookfield .....	05	Georgetown .....	07	M		Oxford .....	05	Southbridge .....	05
Brookline .....	11	Gill .....	02	Malden .....	09	P		Southwick .....	03
Buckland .....	02	Gloucester .....	08	Manchester .....	08	Palmer .....	03	Spencer .....	05
Burlington .....	09	Goshen .....	02	Mansfield .....	14	Paxton .....	05	Springfield .....	03
C		Gosnold .....	15	Marblehead .....	08	Peabody .....	08	Sterling .....	04
Cambridge .....	09	Grafton .....	05	Marion .....	15	Pelham .....	02	Stockbridge .....	01
Canton .....	11	Granby .....	02	Marlborough .....	11	Pembroke .....	12	Whately .....	02
Carlisle .....	11	Granville .....	03	Marshfield .....	12	Pepperell .....	04	Wilmington .....	09
Carver .....	12	Great Barrington ..	01	Mashpee .....	15	Peru .....	01	Winchendon .....	04
Charlemon .....	02	Greenfield .....	02	Mattapoisett .....	15	Petersham .....	02	Winchester .....	09
Charlton .....	05	Chelmsford .....	06	Groton .....	11	Phillipston .....	02	Windsor .....	01
Chatham .....	15	Chelsea .....	09	Maynard .....	11	Pittsfield .....	01	Winthrop .....	09
Chilmark .....	15	Groveland .....	07	Medfield .....	11	Plainfield .....	02	Woburn .....	09
Cheshire .....	01	H		Medford .....	09	Plainville .....	11	Worcester .....	05
Chester .....	03	Hadley .....	02	Medway .....	11	Plymouth .....	12	Worthington .....	02
Chesterfield .....	02	Halifax .....	12	Melrose .....	09	Plympton .....	12	Wrentham .....	11
Chicopee .....	03	Hamilton .....	08	Mendon .....	05	Princeton .....	04	Yarmouth .....	15
Chilmark .....	15			Merrimac .....	07	T			



